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**INPUT**

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*VENDOR ANALYSIS*  
*PROGRAM*



## COMPANY HIGHLIGHT

**INSURANCE SYSTEMS, INC.**  
2400 Michelson, Suite 130  
Irvine, CA 92715  
(714) 752-0875

Loren Parsons, President  
Private Corporation  
Total Employees: 37  
Total Revenues, Fiscal Year End  
6/30/79: \$1,500,000

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### THE COMPANY

- Insurance Systems, Inc. (ISI) was founded in May 1976, to provide interactive insurance ratings to independent brokers and agents. After nearly a year of software development, the company began marketing its product in March 1977.
- ISI had revenues of \$1.5 million in 1979, which was a 25% increase in revenues from 1978. ISI management anticipates doubling the 1979 figure to \$3 million in 1980. A five year summary of revenues follows:

ISI  
FIVE YEAR REVENUE SUMMARY  
(\$ Thousands)  
(FYE 6/30)

ITEM	FISCAL YEAR		
	1979	1978	1977
Revenues	\$ 1,500	\$ 1,200	\$ 1,100
Percent increase from previous year	25%	9%	N/A

- ISI management attributes its growth in revenues to an expanding market and product line.
  - Clients are added at the rate of 20 per month. With a client base of 150 in 1977, ISI served approximately 400 clients in 1979. Approximately 15% of ISI customers generate 90% of its revenues.
  - By establishing and continually updating a rating data base, ISI offers a "value added" service which fills a market void.
- The 37 ISI employees are divided as follows:

- Marketing sales	6
- Software services/customer support	13
- Computer operations and programming	18
Total	37

## KEY PRODUCTS AND SERVICES

- ISI offers personal and commercial auto and homeowner ratings and overnight motor vehicle reports to its 400 independent insurance broker and agent clients.
- The CAIR<sup>TM</sup> System includes interactive access to ISI's computers and data base, interactive terminals and printers, dedicated phone lines, and maintenance. The CAIR user has access to the rates of more than a hundred companies.
  - Clients have the option of using the CAIR data base only, renting necessary equipment from ISI, or purchasing the equipment.
  - Price for the system ranges from a base of \$300 per month for data base inquiry only, to \$619 per month if equipment is rented.
- The following applications comprise the CAIR system:
  - The CAIR Personal Auto Rating Application.
  - CAIR Commercial Auto Rating Application allows the user to prepare fully-rated fleet schedules.
    - This application will rate up to 98 vehicles per schedule with CSL or split limits liability, any combination of physical damage, medical, and UM, as well as such miscellaneous coverages as DOC, hired auto, and non-owned auto.
  - The CAIR General Liability Rating Application allows the user to rate PREM/OP, OL, and T, M, and C, as well as various types of Product Liability.
  - CAIR Homeowners Rating Application is fashioned after the Personal Auto Rating. A premium comparison survey displays the total premiums of several companies. The same input information can then be used to produce detailed quotations for those companies surveyed, or any other company programmed in the CAIR system.
  - The CAIR system is used for additional applications including risk placement and electronic mail.
    - The Risk Placement service uses the CAIR subscriber network. By transmitting a capsulized summary of pertinent information to the CAIR computer, a subscriber can alert other agents to its need for a specific type of market.
    - The Electronic Mail system is a further utilization of CAIR's electronic communications ability. It enables each subscriber to send and receive written messages via the CAIR data network.



## COMPANY HIGHLIGHT/INSURANCE SYSTEMS, INC.

Similarly, multi-location agencies can transmit data to and from their various offices.

- The CAIR Motor Vehicle Reporting (MVR) Application is an ancillary service available to CAIR subscribers that require rapid access to state driver information files. MVRs ordered via the CAIR network terminal are available for printing in the user's office by 10:00 a.m. the following business day.
  - Approximately one-half of the CAIR clients also use the MVR Application. Revenues from MVR are approximately \$44,000 per month.
- In 1980, ISI intends to extend the CAIR applications to include fire rating and package rating. In addition, management plans to support agent/home office data communications networks by offering agency management, agency accounting, and policy issuance services on intelligent terminals.

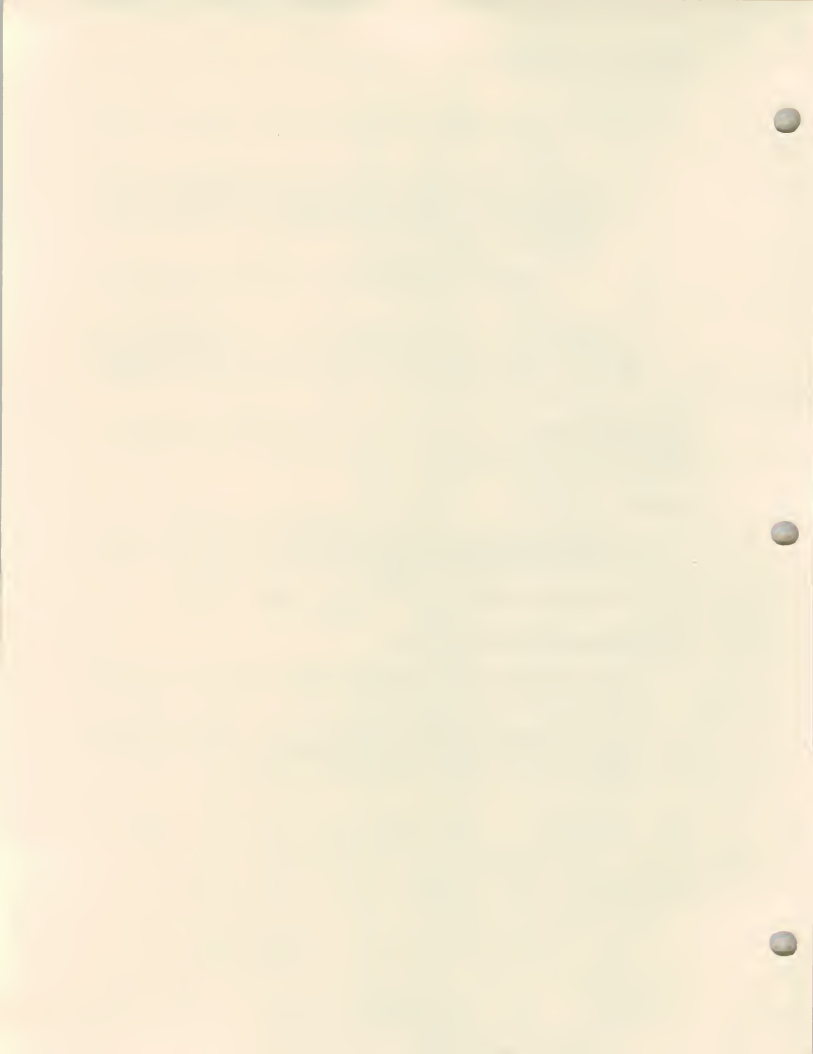
**INDUSTRY MARKETS** One hundred percent of ISI's revenues are derived from insurance brokers and agents.

### GEOGRAPHIC MARKETS

- All of ISI's clients are currently located in California. In addition to its Irvine, CA headquarters and data center, ISI has a sales/support office in Mt. View, CA to serve Northern California clients.
- In the first half of 1980, ISI plans to open another office in Chicago.

### COMPUTER HARDWARE AND SOFTWARE

- ISI operates four Data General Eclipse C330 minicomputers in its Irvine data center. They are connected to ISI-provided user terminals via 2,400 baud leased lines.
- Clients use ADDS Consul 980A CRTS, Okidata CP110, and Centronics 781 printers. ISI provides all maintenance and training on the user terminals.



Bob Crismon

#### COMPANY HIGHLIGHT

INSURANCE SYSTEMS, INC.  
2400 Michelson, Suite 235  
Irvine, CA 92715  
(714) 652-0875

Charles Seven, President  
Private corporation  
Total employees: 25  
Total revenues, fiscal year  
end 12/31/77: \$1,100,000\*

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#### THE COMPANY

- Insurance Systems, Inc. (ISI) was founded in May, 1976 by President Charles Seven to provide online insurance ratings to independent brokers and agents. After nearly a year of software development, the company began marketing its product in March, 1977.
- ISI is a rapidly growing, aggressive new company intent on rapidly expanding its markets and product line. Clients are now being added at the rate of 30 per month.
  - The staff of five salespersons will be increased to nine later this month when a new sales office is opened.
  - Management claims ISI has no direct competitors at present.
- Within the next six months, ISI plans to begin marketing new products for independent insurance brokers and agents.

#### KEY PRODUCTS AND SERVICES

- ISI offers personal and commercial auto ratings and overnight motor vehicle reports to its 150 independent insurance broker and agent clients. The service includes on-line access to ISI's computers and data base, on-line terminals and printers, and dedicated phone lines.
- By March, 1978 ISI expects to have added two additional insurance rating services: homeowners and agency accounting.

APPLICATIONS One hundred percent of ISI revenues are from specialty services for insurance applications.

INDUSTRY MARKETS All the company's clients are independent insurance brokers and agents.

\* INPUT estimate

COMPANY HIGHLIGHT/INSURANCE SYSTEMS, INC.

GEOGRAPHIC MARKETS All ISI clients are currently located in California. In late 1977, the company will open a sales office in Mountain View, CA., to serve Northern California clients. Management plans to open an office in Chicago by April 1978 and additional offices later in 1978.

COMPUTER HARDWARE AND SOFTWARE

- ISI has two Data General Eclipse 330 minicomputers in its computer center in Irvine. They are connected to ISI-provided user terminals via 9600 and 2400 baud leased polled data lines. Client terminals are ADDS Consul 980A CRTs and Okidata CP110 printers.
- ISI owns all the computer equipment and provides all maintenance and training on the user terminals.

## COMPANY HIGHLIGHT

### INSURANCE SYSTEMS OF AMERICA (ISA)

P.O. Box 47975  
Atlanta, GA 30362  
(404) 441-8800

David P. Harbin, President  
Private Corporation  
Total Employees: 630  
Total Revenues, Fiscal Year End  
10/31/80: \$22,000,000

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**PRINCIPAL BUSINESS** Marketing software products for the insurance industry since incorporation in Georgia in 1969.

### FINANCIALS

	10/80	10/79	10/78	10/77	10/76
- Total Revenues (\$ Thousands)	\$22,000	\$17,000	\$11,500	\$7,323	\$4,501

- ISA management expects FY 1981 revenues to reach \$28 million.

### SOURCES OF REVENUE

- 65% Software products.
- 23% Professional services.
- 12% Remote batch processing.

### PRODUCTS AND SERVICES

- Software products (Exhibit A).
- Professional services revenues are derived from the evaluation and installation of software, systems design and consulting relating to long-range data processing requirements for insurance companies.
- Remote batch processing.
  - ISA installs a Data General Nova 3/D minicomputer at client locations to provide casualty processing using the Casualty Information System and financial applications (ISA/ABC and Bond and Stock).
  - There are currently 16 minis installed which are linked to ISA's Atlanta data center by telephone grade lines. Clients use the minis for data entry, editing and inquiry.

**NEW VENTURES** On November 1, 1979, ISA formed a subsidiary to provide satellite communications services for the insurance industry. ISA Communications Services, Inc. (ISACOMM) is 51% owned by ISA and 49% owned by American General and the Wausau Insurance Companies.

- In FY 1980 ISACOMM had revenues of approximately \$1 million. It provided 100% professional services, specializing in communications consulting.

## EXHIBIT A

PRODUCTS  
INSURANCE SYSTEMS OF AMERICA

PRODUCT	DESCRIPTION	PRICE	NUMBER INSTALLED	CPU REQUIREMENTS (OPERATING SYSTEM)
<b>SOFTWARE PRODUCTS</b>				
— ISA/ACCOUNTING, BUDGET AND COST SYSTEM (ABC)	CENTRALIZED CHECK- WRITING SYSTEM	\$50,000—\$104,000	205	IBM 360/370+ (DOS, OS AND VS)
— ISA/CASH DISBURSE- MENT SYSTEM		\$42,000—\$61,000	75	IBM 360/370+ (DOS, OS, VS, IMS AND CICS)
— ISA/HEALTH CLAIM MANAGEMENT SYSTEM		\$280,000+	27	IBM 360/50, 370/145+ (OS/MFT, OS/MVT, OS/VS1, OS/VS2, MVS, DOS/VS)
— ISA/CORPORATE MODEL SYSTEM	FILE MANAGEMENT SYSTEM	\$8,000—\$27,500	46	IBM 360/370 (DOS, OS)
— ISA/EXTRACTO		\$15,000—\$22,500	17	IBM 360/22, 370/115+ (DOS, OS, VS)
— ISA/ON-LINE ALPHA SYSTEM (ISA/OAS)	CREATES, MAINTAINS, UPDATES AND RETRIEVES ALPHA- BETICALLY INDEXED <sup>PS</sup> RECORDS	\$23,000—\$44,000	80	IBM 360/30+ (DOS, OS, OS/VS)
— ISA/BOND AND STOCK SYSTEM	BASIC INVESTMENT ACCOUNTING	\$26,000—\$36,000	165	IBM 360/370 (OS, OS/VS, DOS, DOS/VS)
— ISA/ON-LINE SECUR- ITIES CONTROL, ANALYSIS AND REPORTING SYSTEM (ISA/OSCARS)	INVESTMENT MANAGE- MENT SYSTEM FOR LARGE FINANCIAL INSTITUTIONS	\$55,000—\$85,000	31	IBM 360/370 (OS, OS/VS, DOS, DOS/VS)
— ISA/CASUALTY INFORMATION SYSTEM	CENTRAL FILE SYSTEM FOR PROPERTY AND CASUALTY INSURANCE COMPANIES	\$125,000—\$300,000+	60	IBM 360/50, 370/138+ (DOS, OS, OS/VS AND CICS)

## COMPANY HIGHLIGHT/INSURANCE SYSTEMS OF AMERICA (ISA)

- With 50 employees, ISA management expects ISACOMM to reach a break-even position in three to four years.
- ISACOMM is licensed by the FCC and will provide:
  - . Telephone service between multiple office locations via a projected 40 earth stations.
  - . High-speed data transmission.
  - . Teleconferencing.
  - . Document transmission.

### INDUSTRY MARKETS

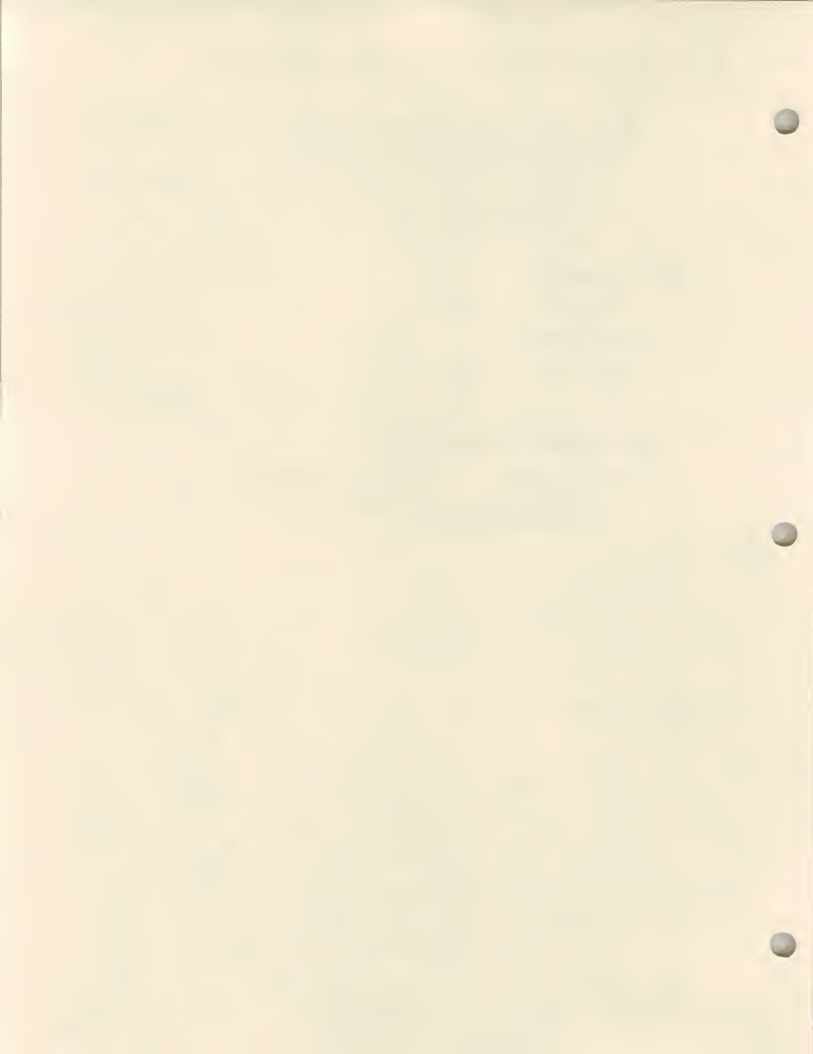
- Insurance industry: 100%.

### GEOGRAPHIC MARKETS

- |                 |       |
|-----------------|-------|
| - United States | 95%   |
| - Canada        | 5%    |
|                 | <hr/> |
|                 | 100%  |

### COMPUTER HARDWARE AND SOFTWARE

- Equipment installed in the Atlanta data center includes:
  - . 1 IBM 3033.
  - . 1 IBM 4341 operating under DOS/VSE.
  - . 2 Data General Novas.





## COMPANY HIGHLIGHT

### INSURANCE SYSTEMS OF AMERICA, INC.

P.O. Box 47975  
Atlanta, GA 30362  
(404) 449-3950

David P. Harbin, President  
Private Corporation  
Total Employees: 400  
Total Revenues, Fiscal Year End  
10/31/78: \$11,500,000

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### THE COMPANY

- Insurance Systems of America, Inc. (ISA) was founded in 1969 to provide, software products, processing, and professional services to the insurance industry. It is owned by the following 15 insurance companies:
  - The Mutual Benefit Life Insurance Company.
  - American General Insurance Company.
  - Life Insurance Company of Georgia.
  - Provident Life and Accident Insurance Company.
  - Paul Revere Life Insurance Company.
  - Aetna Life and Casualty.
  - United Benefit Life Insurance Company.
  - Maccabees Mutual Life Insurance Company.
  - California-Western States Life Insurance Company.
  - American United Life Insurance Company.
  - Capital Holding Corporation.
  - National Life and Accident Insurance Company.
  - Mutual of New York.
  - Aetna Insurance Company.
  - Southland Life Insurance Company.
- Revenues have grown at a compound annual, average growth rate of approximately 42% since founding. Between 1975 and 1978, revenues increased at an annual average growth rate of approximately 51% from \$3.3 million to \$11.5 million. Fiscal 1979 revenues are projected, by ISA management, to reach \$18 million, 51% above 1978 revenues.
- In 1976, ISA completed its acquisition of Executive Management Software and Services (EMSS) of Cedar Rapids, Iowa. When acquired, EMSS had annual revenues of approximately \$1 million and sold software products to the insurance industry.
- Employees are approximately distributed as follows:

## COMPANY HIGHLIGHT/INSURANCE SYSTEMS OF AMERICA, INC.

- Marketing/sales	52
- Software services and customer support	228
- Computer operations	40
- General and administrative	<u>80</u>
	400

### KEY PRODUCTS AND SERVICES

- Approximately 84% of ISA revenues in fiscal 1978 were generated by the sale of software products, 11% by professional services, and 5% by batch processing services.
- ISA offers 11 software products with a total of 500 installations. Software packages available to insurance companies are:
  - ISA/Accounting, Budget and Cost System.
  - ISA/Automated Letter Preparation System.
  - ISA/Cash Disbursement System.
  - ISA/Claim Payment System.
  - ISA/Corporate Model System.
  - ISA/EXTRACTO.
  - ISA/On-Line Alpha System.
  - ISA/Pension Proposal & Administration System.
  - Investment Systems: Bond & Stock and On-line Securities Control and Analysis.
  - V-4 (Casualty Insurance System).
- ISA/Accounting, Budget and Cost System, with approximately 128 installations. It is a modular system, ranging in price from \$11,000 to \$85,500 for OS version.
  - The system consists of the following applications:
    - . Accounting.
    - . Budgeting.
    - . Cost Allocation.
    - . Statutory Reporting System.
    - . General Report Writer
  - Written in ANS COBOL and compatible with IBM System/360 and System/370 systems, running under DOS, OS, and VS.

## COMPANY HIGHLIGHT/INSURANCE SYSTEMS OF AMERICA, INC.

- ISA/Automated Letter Preparation System, with approximately eight installations, ranges in price from \$10,000 to \$20,000 and provides computer-generated letters using continuous form letterhead.
  - Letters can be created combining standard paragraphs on file, inserting lines, words, or paragraphs into standard letters on file, or running complete letters on file.
  - Written in ANS COBOL and BAL for IBM System/360 Model 30 or larger systems, running under DOS, DOS/VS, OS/MVT, or OS/VS.
- ISA/Cash Disbursement System, with 29 installations, is a centralized check-writing system for insurance companies and costs between \$33,000 and \$46,500, depending on the operating system.
- ISA/Claim Payment System, with approximately 17 installations, determines insured's eligibility, validates claims, produces claims-related correspondence, calculates claims, and produces documentation. The system costs between \$280,000 and \$300,000.
  - It is written in COBOL and Assembler language for IBM System/360 Model 50, System/370 Model 145 or larger systems, running under OS/MFT, OS/MVT, OS/VS1, OS/VS2, MVS, and DOS/VS.
- ISA/Corporate Model System, with approximately 46 installations, ranges in price from \$8,000 to \$27,500 and is designed to assist life insurance company management.
  - Its three modules are:
    - Life Insurance Model which produces a projected gain from operations.
    - Asset Model which projects net investment income.
    - Federal Income Tax Model which projects estimated Federal income taxes for U.S. and foreign companies.
  - Corporate model is written in ANS COBOL for use on IBM System/360 or System/370 systems, running under DOS or OS.
- ISA/EXTRACTO, with approximately 12 installations, is a file management system which can be used separately or in conjunction with ISA's other software. It costs between \$15,000 and \$22,500.

## COMPANY HIGHLIGHT/INSURANCE SYSTEMS OF AMERICAN, INC.

- EXTRACTO is written in Basic Assembler Language for use on IBM System/360 Model 22, System /370 Model 115, or larger systems, running under DOS, OS, and VS.
- ISA/On-Line Alpha System, with approximately 43 installations, creates, maintains, updates, and retrieves alphabetically indexed records. The price of the system ranges between \$23,000 and \$44,000.
- It is written in Assembler language for IBM System/360 Model 30 or larger systems, running under DOS, OS, or OS/VS. It can be accessed through GISAM, BISAM, BDAM, BSAM, and QSAM.
- ISA/Pension Proposal & Administration System, with approximately 19 installations, has two modules: Proposal and Administration. It costs between \$50,000 and \$95,000.
- The Proposal System has the following features:
  - Defined benefit formula, money purchase, and profit sharing plans.
  - Four English language comparative proposals.
  - Integrated and non-integrated formulas for defined benefit and defined premium areas.
  - Formula generation for plans where the general formula type and amount of planned employee contributions are known.
  - Profit sharing contributions on both dollar amount and percentage of salary bases.
  - Fully-insured, uninsured, and combination funding plans processed.
- The Administration System has the following features:
  - Automated monitoring of all pending, proposed, and in-force cases.
  - Maintains master file of all in-force pension cases; creates pending file of all proposed cases.
  - Automatic creation of census data worksheet.
  - Creation of complete and comprehensive employee benefit statements.
  - Actuarial cost and funding reporting.
  - Cost reporting for 1099 and PS-58 forms.
  - Policy issue information reporting for new insurance funding of increased benefits.

## COMPANY HIGHLIGHT/INSURANCE SYSTEMS OF AMERICA, INC.

- Investment Systems, with approximately 143 installations, include 127 Bond and Stock systems (I and II) and six On-Line Securities Control systems (III and IV).
  - Bond and Stock I and II costs between \$24,000 and \$34,500 and encompasses the following major functions:
    - Provides complete inventory control and maintains records of all investment transactions.
    - Produces Schedule D, Canadian A and B and other statutory reports.
    - Produces key reports for investment accounting and management.
    - Creates general ledger entries directly to specified accounts of a user's existing accounting system.
    - Allows non-technical personnel to produce tailored reports.
  - On-line Securities Control, Analysis and Reporting System (ISA/OSCARS), costs between \$47,500 and \$75,000 and has the following capabilities to handle investment needs of large financial institutions:
    - Investment accounting.
    - Management reporting.
    - Cash management.
    - Portfolio pricing.
  - All Investment Systems process the following types of securities:
    - Bonds.
    - Commercial paper.
    - Certificates of deposits.
    - Principal reduction.
    - Preferred stocks.
    - Common stocks.
    - Sinking funds/mortgages.
    - Convertible securities.
    - Foreign securities.
    - Rights/warrants.
    - Options.
    - Government, municipal, and corporate bonds.
  - All are written in ANS COBOL for IBM System/360 or System/370 systems, running under OS, OS/VS, DOS, DOS/VS.
- V-4, with approximately 34 installations, is a central file system for property and casualty insurance companies. The system ranges in price from \$125,000 to over \$300,000.

## COMPANY HIGHLIGHT/INSURANCE SYSTEMS OF AMERICA, INC.

- V-4 has the following capabilities:
  - Data collection and retrieval through local and remote terminals.
  - Automated rating.
  - Audit history of policies and changes.
  - Claims entry.
  - Inquiry of policies, losses, accidents, coverages, expenses, reserves, recoveries, and changes.
  - Supplemental policy entry and inquiry for manually rated policies.
  - Billing and cash entry.
  - Name and address reference inquiry.
  - Statistical analysis inquiry.
- It is written in ANS COBOL for use on IBM System/360 Model 50, IBM System/370 Model 138 or larger systems, running under DOS, OS or OS/VS.
- Professional services revenues are derived from providing consulting services, evaluation and installation of software, design of new systems and advising clients on their long range data processing requirements.
- Remote batch processing services account for five percent of revenues. Hardcopy terminals or front end minicomputers are available.
  - To date, ten minicomputers have been installed at client locations to provide data entry editing, and inquiry via telephone grade lines. ISA uses Data General NOVA 3/D mini computers.
  - Batch processing is provided by ISA's data center in Atlanta, GA.

**GEOGRAPHIC MARKETS** ISA fiscal 1978 revenues were derived from the following geographic areas (percentages are approximates):

New England	20%
Middle Atlantic	10
East North Central	15
West North Central	5
South Atlantic	5
East South Central	0
West South Central	10
Mountain	5
Pacific	15
Canada	15
	<hr/>
	100%

## COMPANY HIGHLIGHT/INSURANCE SYSTEMS OF AMERICA, INC.

### COMPUTER HARDWARE AND SOFTWARE

- ISA uses one IBM System/360 Model 65 running under OS and one IBM System/370 Model 148 running under OS/VS to provide processing services in its data center in Atlanta.





## COMPANY PROFILE

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### **INSURNET, INC.**

1900 Powell Street  
Emeryville, CA 94608-1840  
(415) 652-3771

Sal Cafiero, CEO  
Thomas Lukens, President  
Subsidiary of Continental Insurance  
Company  
Total Employees: 120  
Total Revenue, Fiscal Year End  
12/31/90: \$25,000,000\*

\*INPUT estimate

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### **The Company**

Insurnet, Inc., founded in 1969, provides turnkey systems to independent property and casualty insurance agents.

Insurnet operates as a wholly owned subsidiary of Continental Insurance Co. of New York, a Continental Corp. subsidiary that sells property and casualty insurance.

Insurnet's major competitor is Delphi Information Systems.

### **Key Products and Services**

Approximately 95% of Insurnet's 1990 revenue was derived from turnkey systems (hardware and software) and 5% from custom programming and consulting services.

The Insurnet System is an automated agency management system designed specifically for independent property and casualty insurance agents.

- The Insurnet System provides policy and claims management, sales and marketing tools, underwriting and risk management, and financial management integrated applications.
- In December 1990, Insurnet introduced the PRO System, an enhancement to the Insurnet system that supports proposal generation and prospecting marketing functions.
- During 1990, the Insurnet System was also made available for the IBM AS/400 in native mode.
- The software is available for IBM System/36, AS/400, RT, and RS/6000 computers, DEC 2000 and 3000 series systems, and Honeywell DPS 6 systems. Hardware maintenance is provided by the hardware vendor.

- There are currently approximately 1,200 agency systems installed.

In October 1990, Insurnet introduced the Life/Health/Benefit System, a custom program that supplements the Insurnet System. It provides independent property and casualty insurance agents with one system to track commissions and cross-sell their products.

Insurnet also has ongoing interactive and batch communications development projects with a number of companies, providing a single-entry, multicompany connection with an insurance carrier's mainframe computer.

Insurnet provides training on-site to new customers at no additional charge, unlimited use of a toll-free support service, documentation, and regular software updates standard with the Insurnet System. Separately priced services include consulting and custom programming.

**Industry Markets**

One hundred percent of Insurnet's revenue is derived from independent property and casualty insurance agents.

**Geographic Markets**

One hundred percent of Insurnet's 1990 revenue was derived from the U.S.

## COMPANY PROFILE

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### **INSURNET, INC.**

1900 Powell Street  
Emeryville, CA 94608-1840  
(415) 652-3771

Sal Cafiero, CEO  
Thomas Lukens, President  
Subsidiary of Continental Insurance  
Company  
Total Employees: 120  
Total Revenue, Fiscal Year End  
12/31/89: \$25,000,000

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### **The Company**

Insurnet, Inc., founded in 1969, provides turnkey systems to independent property and casualty insurance agents.

- Insurnet operates as a wholly owned subsidiary of Continental Insurance Co. of New York, a Continental Corp. subsidiary that sells property and casualty insurance.

Insurnet's major competitor is Delphi Information Systems.

### **Key Products and Services**

One hundred percent of Insurnet's 1989 revenue was derived from turnkey systems (hardware and software).

The Insurnet System is a turnkey system designed specifically for independent property and casualty insurance agents.

- The Insurnet System provides policy and claims management, sales and marketing tools, underwriting and risk management, and financial management integrated applications.
- The software is available for IBM System 36, AS/400, and RISC computers, DEC 2000 and 3000 series systems, and Honeywell DPS 6 systems. Hardware maintenance is provided by the hardware vendor.
- There are currently approximately 1,200 systems installed.

During 1989, Insurnet also made available interface software with both interactive and batch capabilities that permits agents a single-entry, multicompany connection with an insurance carrier's mainframe computer. The first interactive connection was made in September 1989 between Chubb & Son, Inc. (a New Jersey-based carrier) and BHK&R agency in Minnesota.

Insurnet provides training on-site to new customers at no additional charge. Separately priced support services include consulting and custom programming.

**Industry Markets**

One hundred percent of Insurnet's revenue is derived from independent property and casualty insurance agents.

**Geographic Markets**

Approximately 95% of Insurnet's 1989 revenue was derived from the U.S. and 5% from Canada.

(Jack Kern)

Ken Parker, Pres  
Cptr Info Mgmt Div

#### COMPANY HIGHLIGHT

INSYTE CORPORATION  
9219 Katy Freeway  
Suite 225  
P. O. Box 19522  
Houston, Texas 77024  
(713) 461-7950

Benjamin Ronn, President  
Public Corporation, Over-The-Counter  
Employees engaged in computer services: 100  
Total company sales for fiscal year end  
6/76: \$5,500,000  
Computer services sales for fiscal year end  
6/76: \$2,700,000

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#### COMPANY BACKGROUND:

- Insyte is a rapidly growing public company which currently obtains one half of its revenues from software products, systems analysis and contract programming services, and the other half from real estate service related activities.
- The company was originally founded in 1966 in Philadelphia as Information Interscience Incorporated and specialized in data base abstracting work. Present management assumed control in late 1972, renamed the company as Insyte, discontinued unprofitable operations, and began aggressively expanding into the computer services and real estate operations area, primarily via acquisitions. Companies acquired include Computer Information Management (CIM) and Machly Wood Systems Corporation.

#### OVERALL ASSESSMENT AND TRENDS:

- Insyte management has doubled revenues each year for the past two years and has turned the company around from a \$5,000,000 loss in fiscal year 1972 to a \$506,000 before tax profit in fiscal year 76.
- The company is aggressively working to expand all of its major business areas through internal growth and acquisition. Insyte plans to leverage much of its growth from its established base of over 75 data base software product installations. This will be accomplished in part by adding new systems and applications software products which directly relate to the company's DATACOM software.
- DATACOM revenues represent a substantial portion of computer services revenues and are expected to continue to increase in fiscal year 1977. Insyte plans to become increasingly active in applications development work also based on their DATACOM software. A new division, Commercial Systems, has been formed to develop and market such software.
- The company has also formed a mini-computer turnkey group within the company and plans to establish itself in that marketplace.
- Overall the company is well positioned for additional growth in several sectors of the computer services area. Management is well aware that

## COMPANY HIGHLIGHT/INSYTE CORPORATION

aggressive expansion is not without its risks. However, it feels it can maintain that difficult balance between rapid growth and controlled operations. If it is correct, Insyte could emerge within a few years as a significant force within the industry.

### KEY PRODUCTS AND SERVICES:

- The company has 29 employees actively marketing and maintaining systems software for IBM 360/370 DOS, OS and VS users. The product line includes:
  - DATACOM DB/DC: a data base/data communications control system which uses inverted file structure techniques to provide all required facilities to develop, implement and maintain data base and online applications. Over 50 units of DB and 70 units of DC have been installed in the past three years. Prices range from \$17,000 to \$50,000 for each system.
  - DATAQUERY: a free form online query language for non-programmer access to the DATACOM data base. The system will be introduced in December for \$10,000.
  - ORDER: a finished goods inventory control system which operates with DATACOM. The system was introduced in late 1976 and is separately priced at \$100,000.
- Insyte provides systems design and programming services through its 45 employees of the Analytical Systems and Government Systems divisions. Other technical services include scientific bibliographic documentation and related translation and information processing.
- Real estate activities, which were established in 1974, provide financial, technical, and management services to the multi-housing industry.

### APPLICATIONS:

- Currently the company's applications work deals primarily with government systems. The company plans to expand into other applications areas, an example of which is the finished goods inventory system mentioned above.

### INDUSTRY MARKETS:

- Insyte assists local, state, and federal governments in designing, developing, evaluating, and implementing information systems in such areas as public safety, health and welfare. Included as customers are over ten state governments and the Territory of Guam. The DATACOM

## COMPANY HIGHLIGHT/INSYTE CORPORATION

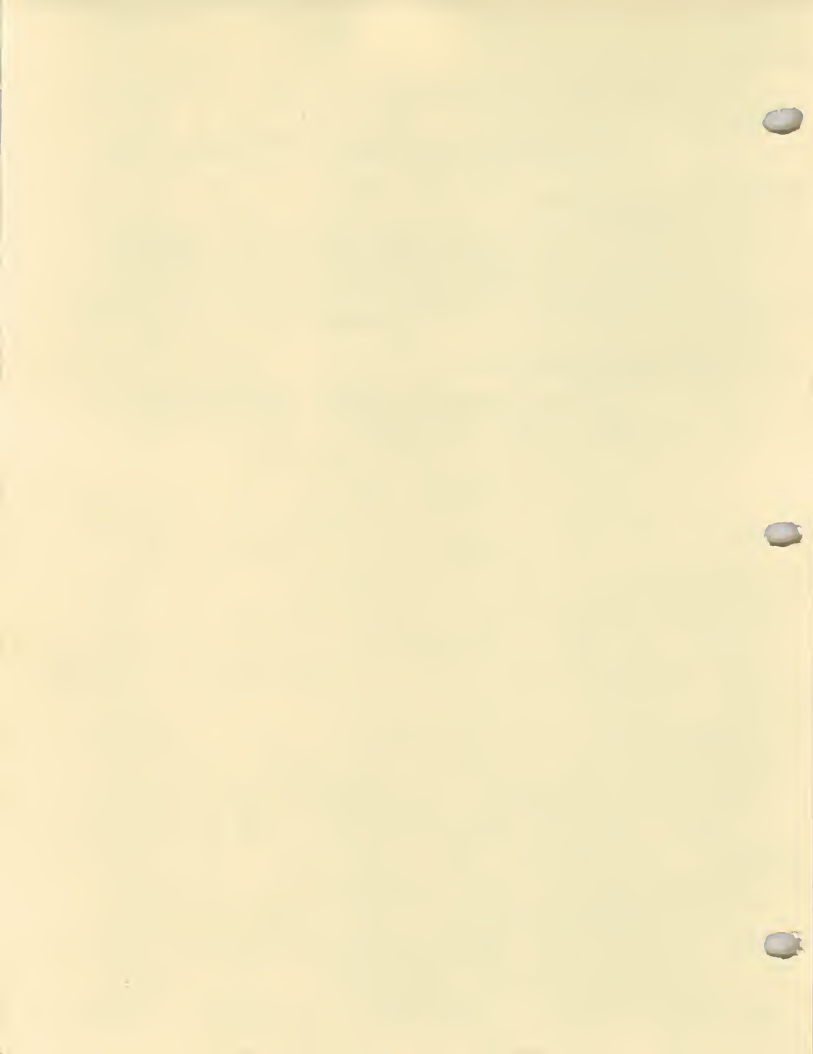
software products are marketed to a wide variety of industries with special penetration in banking, financial, data services, and manufacturing companies.

### GEOGRAPHIC MARKETS:

- Insyte markets its services and products nationwide. The DATACOM group is headquartered in Dallas, as are two of their five sales personnel and the Commercial Systems division. Sales offices are also maintained in San Francisco, Boston and Atlanta. The Analytical Systems division is located in Vienna, Virginia, while the Government Systems division is headquartered in Denver.

### COMPUTER HARDWARE AND SOFTWARE:

- The company utilizes external computers for all development and testing activities. An RJE terminal is located in Dallas for online access to required computer power.





## COMPANY HIGHLIGHT

### INTEGON COMPUTER CORPORATION

420 Spruce Street  
Winston-Salem, NC 27102  
(919) 725-7261

J. Bill King, President  
Wholly owned subsidiary of  
Integon Corporation  
Total employees: 69  
Total revenues fiscal year end  
12/31/77: \$3,000,000\*

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### THE COMPANY

- Integon Computer was founded in 1969 as a spin-off of its parent, Integon Corporation. It provides remote computing services to savings and loan associations.
- The Federal Home Loan Bank, NCR Corporation; and savings and loans' in-house systems are the company's major competitors.

### KEY PRODUCTS AND SERVICES

- One hundred percent of Integon Computer revenues in 1977 were generated by the sale of interactive remote computing services to savings and loan associations. It currently offers on-line data processing services to over 135 thrift institutions in six states. Its computer handles over 1,750,000 savings and loan accounts through 670 on-line terminals.
- Integon Computer services include:
  - On-line Savings System
    - Standard passbook format
    - Divident computations
    - Divident checks
    - Savings statements
    - Optional savings, full-paid and certificates of deposit
    - 1099 information return
    - Advertising codes
  - On-line Mortgage System
    - Escrow and capitalization plans
    - Delinquency reports, issue of delinquent notices
    - Standard passbook format
    - Mortgage billings
    - Prepayments
    - Payments in arrears

\* INPUT estimate

## COMPANY HIGHLIGHT/INTEGON COMPUTER CORPORATION

- Certificate of Deposit
- Payment drafts using preauthorized withdrawal from savings.
- Integon plans to offer Pay-by-Phone services in the future through the Carolina's Financial Federation.

**APPLICATIONS AND INDUSTRY MARKETS** One hundred percent of the company's revenues are derived from specialty services for thrift institutions.

## GEOGRAPHIC MARKETS

- Approximately 45% of Integon's revenues are generated in North Carolina and 25% in South Carolina. Remaining revenues are produced in Tennessee, Georgia, Virginia, and Alabama.
- Management claims it serves the majority of savings and loan associations in North and South Carolina with on-line capability.
- Integon plans to follow the lead of its parent company by gradually expanding services in the Sunbelt region of the United States.

## COMPUTER HARDWARE AND SOFTWARE

- The company's equipment consists of:
  - Host computer: 2 - IBM 370/158s, running under DOS/VSE
  - Communications front end: 2 - IBM 3704
  - Minicomputers: 15 to 20 - modified Burroughs DC140s used as concentrators in the field network
  - Terminals: In the past Integon has leased terminals to its S&L users. Now, its primary involvement in terminal hardware is in obtaining quantity discounts for users. The 670 terminals in customer offices are:
    - Programmable CRTs: Burroughs TD 700.
    - Programmable keyboard: Burroughs TC700, TU700, and TU1800; Bunker Ramo 2000; and IBM 3600
    - Non-programmable keyboard: IBM 2980
- Network: remote terminals are connected to dual 370/158s in Winston-Salem, North Carolina via microwave and/or 9 4800 baud, bisynchronous, multi-drop leased telephone lines. Integon plans to add 1-2 additional leased telephone lines in 1978.

## COMPANY PROFILE

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### INTEGRAL SYSTEMS, INC.

2185 North California Boulevard  
Walnut Creek, CA 94596-9496  
Phone: (510) 939-3900  
Fax: (510) 939-4891

President and CEO: William R. Leckonby  
Status: Private  
Total Employees: 440  
Total Revenue: \$60,000,000\*  
Fiscal Year End: 3/31/93

\*INPUT estimate

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### Key Points

- In October 1993, Integral Systems, Inc. (Integral) announced the appointment of William Leckonby as president and chief executive officer. Mr. Leckonby brings 28 years of industry experience to Integral and since 1988, had been the president and chief operating officer of Tesseract Corporation, a supplier of human resource and payroll applications.
- In July 1993, after one week of sales, Integral Systems announced it had closed \$1 million sales for its new client/server human resource product, InPower HR.
- A key issue for Integral will be the alliances and products the company develops that address the need for tools aiding the migration of legacy applications into a client/server environment.
- In January 1994, Integral announced it had completed divestiture of the manufacturing and distribution application components of its Midrange Division. Sales of the software, as well as ongoing support, will now be provided by Neumenon, a models-based manufacturing and distribution software developer headquartered in Novi, Michigan.

**Company Description**

Integral Systems Inc., founded in 1972, is an enterprise computing human resource and financial software applications developer. Integral addresses the needs of medium-to-large businesses in addition to government and educational organizations with host-based and second-generation client/server applications and services.

- The company's human resource management and financial applications are available for IBM mainframe, midrange and desktop platforms.
- Integral currently has more than 1,400 customers through 5,000 installations at over 2,000 sites worldwide. Customers include state and local government agencies, higher education institutions and medium to large-sized businesses across multiple industries.

**Financials**

INPUT estimates Integral's fiscal 1993 revenue is at \$60 million, representing flat revenue growth.

**Market Financials**

Integral's revenues are divided between the following markets:

Manufacturing:	18%
Banking and finance	4%
Telecommunications	2%
Education	7%
Retail	10%
Insurance	4%
Oil	3%
Health care	17%
Energy	10%
Entertainment	13%
State and local government	12%

**Geographic Markets**

Approximately 90% of Integral's revenue is derived from the U.S. and 110% from international sources.

Integral sells and services its products through direct sales organizations in North America and Pacific Rim countries. The company operates seven North American sales offices located in: Atlanta, GA; Dallas, TX; Durham, NC; Downers Grove, IL; Teaneck, NJ; Walnut Creek, CA and Willowdale, Ontario (Canada).

## Strategy

Integral's corporate mission is to provide products and services that help customers maintain mission-critical applications on host-based systems or migrate to distributed client/server applications on open platforms. Integrals' products and services are designed to maintain the integrity of the enterprise computing system while improving efficiency, responsiveness and information access.

Integral will continue to market and support its midrange human resource and financial applications through a strategy that integrates its client/server InPower Series with existing AS/400 products.

## Acquisitions

Integral initiated an growth program during the 1980s and began supplementing its internal product development efforts with the acquisition of key products and technologies to enhance its offerings of core business applications.

- In 1987, Integral acquired Sysgen, a supplier of integrated human resource and financial applications for the IBM AS/400 and System/38 midrange computers. This acquisition added financial applications to Integral's product line, broadened its human resource offerings and positioned the company to exploit the rapidly growing domestic and international midrange market.
- To round out its financial product set, in 1989, Integral acquired Data Design Associates, a leading supplier of financial applications for IBM and IBM-compatible mainframes. With this acquisition, Integral was able to offer its customers a full suite of core human resource and financial applications.
- In 1990, Integral acquired Wright Systems, a developer of CASE-based manufacturing and distribution software systems for the IBM midrange market. The Wright acquisition opened the door to the growing AS/400 market and enhanced Integral's knowledge base and expertise in CASE engineering methods.

**Divestitures**

In January 1994, Integral announced it had completed divestiture of the manufacturing and distribution application components of its Midrange Division. Sales of the software, as well as ongoing support, will now be provided by Neumenon, a models-based manufacturing and distribution software developer headquartered in Novi, Michigan.

Integral will continue to market and support its midrange human resource and financial applications through a strategy that integrates its client/server InPower Series with existing AS/400 products.

**Alliances**

Distributors in Malaysia, New Zealand and Venezuela support Integral's products. Distributor relationships in Europe are currently being developed.

Integral has joint marketing agreements with leading industry hardware and software suppliers including IBM, Hewlett-Packard, Oracle, Sybase, Gupta and Information Builders, Inc.

**Key Products and Services**

Approximately 25% of Integral's revenue is derived from software license fees and royalties, 55% from software maintenance and 20% from consulting and professional services.

Integral serves more than 1,400 customers through 5,000 installations at over 2,000 sites worldwide. Customers include state and local government agencies, higher education and medium- to large-sized businesses across multiple industries.

Integral's products are listed in the following exhibit:

## EXHIBIT A

## INTEGRAL PRODUCTS

APPLICATION AREA/PRODUCT	APPLICATION AREA/PRODUCT
<i>Financial Management</i> <ul style="list-style-type: none"><li>- Accounts Payable &amp; Purchase Control</li><li>- Accounts Receivable</li><li>- Fixed Assets</li><li>- General Ledger</li><li>- InFocus</li><li>- InPerspective</li><li>- Materials Management</li><li>- Project Accounting</li></ul>	<i>Human Resource Management</i> <ul style="list-style-type: none"><li>- Affirmative Action Planning</li><li>- Applicant Tracking</li><li>- Benefits Management</li><li>- Compensation Workbench</li><li>- Defined Contributions</li><li>- Flexible Compensation</li><li>- Human Resource Management</li><li>- InFocus Report Writer</li><li>- Organization Charting</li><li>- Payroll Management</li><li>- Pension Benefits</li><li>- Position Control</li><li>- Time &amp; Attendance Management</li></ul>

Client/Server software runs on the following operating systems: OS/2, UNIX, and MVS. Products will also be adapted in the future to run on Windows NT and OS/400.

Mainframe products runs on MVS/XA and DOS/VSE.

Midrange software runs on the OS/400 operating system.

*Client/Server Products*

Integral has introduced the InPower Series, a second-generation client/server line for enterprise computing environments. This series was designed using CASE methodologies including Joint Application Design (JAD) and Joint Requirements Planning (JRP) sessions. Integral involved customers and industry practitioners to gain valuable product feedback and recommendations for critical business requirements.

Integral's second-generation product line offers:

- Distributed applications for open systems
- Separation of business rules from applications logic
- Adaptable business event processing,

- presentation and user workflow
- Deliverable business models

### *Support Services:*

Integral provides comprehensive services to support product implementation and ensure customer satisfaction. Technical experts provide in-depth product, technical and functional assistance. Functional and technical training is available at customer locations and training facilities worldwide.

Through maintenance agreements, Integral provides additional support including toll-free telephone technical assistance, a 24-hour response line, an electronic bulletin board, user conferences and newsletters and on-site system updates to reflect new statutory and regulatory requirements.

### *Tool Set*

The InPower Architecture, which forms the foundation of Integral's InPower Series, comes with an object oriented, repository-based toolset. The toolset allows users to adapt screens and make changes to the database, business functions and workflow. Workflow patterns can be established through a feature that automatically prompts users processing one business event to a user-defined number of related events that need to be completed. Administrative tools are available for security and object administration. The object oriented structure of the system eases maintenance and upgrades and allows reuse of application components.

### **Clients**

Client/Server clients include: Alcoa (global implementation), Sun Microsystems (global implementation), The Pillsbury Company, Pratt Whitney, Transco, Chesterfield County.

Mainframe clients include: The University of Pennsylvania, Sara Lee Knit Products, ITT Hartford Insurance, Johnson & Johnson Services, King County Medical Blue Shield.

Midrange clients include: Nissan Motors, Stokely U.S.A., Oshkosh B'Gosh, Alta Bates Medical Center, Axiom Corporation, Elger Manufacturing.

### **Competition**

Integral's primary competitors include Dun & Bradstreet Software, Oracle, PeopleSoft, SAP America, Tesseract and Walker Interactive.



**INPUT  
Assessment**

Integral is a solid company that needs to reduce reliance on revenues from traditional mainframe-based "legacy" systems sales and support. Integral is currently successfully migrating its client base from mainframe to client/server products.

Integral's models-based products will aid in positioning Integral in the client/server market. The specialization of application development tools linked to the offering of client/server solutions is key for independent software companies.

In addition, alliances become increasingly important as application installations become more complex. Integral has formed some important alliances to help position itself in the client/server market. Its affiliation with Information Builders is important, as Information Builders emerges as a leading multi-platform 4GL specializing in database connectivity.

Alliances with system integrators will also be important in the future for software companies offering client/server solutions as users move toward buying complete solutions from professional services firms.

INPUT also believes it will be important for Integral to expand the platforms that their software runs on. Heterogeneity of hardware and software platforms is a driving force in the client/server market. Integral should also consider positioning its products with a system integrator offering full solutions for client/server applications.



## COMPANY PROFILE

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### **INTEGRAL SYSTEMS, INC.**

2185 North California Boulevard  
Walnut Creek, CA 94596-9496  
Phone: (510) 939-3900  
Fax: (510) 939-4891

Brian M. Aspland, President and CEO  
Private Corporation  
Total Employees: 440  
Total Revenue, Fiscal Year End  
3/31/92: \$60,000,000\*

\*Company estimate

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### **The Company**

Integral Systems Inc., founded in 1972, is a worldwide provider of core business applications software and support services that address the enterprise-wide information requirements of Fortune 1000 companies.

- The company's human resource management, financial management, and manufacturing and distribution applications are available for IBM mainframe, midrange, and desktop platforms.
- Integral currently has more than 2,400 customers worldwide--including government entities and public and private institutions--serving the health care, education, financial services, telecommunications, automotive, retail, and transportation industries.

Integral is using CASE engineering tools and information modeling to build its next generation of products.

- A key component of Integral's product development strategy is the support of industry standards and tools. As an IBM business partner, Integral's products are built in conformance with IBM's SAA strategy for enterprise-wide computing, and all CASE-based products are engineered in compliance with IBM's AD/Cycle framework for applications development.
- Active customer involvement is also essential to Integral's product development methodology. Through joint development partnerships with key customers, Integral develops products based on practical business requirements.
- The company is developing and delivering client/server products that enable end users to distribute business functions and data to the level that is most appropriate for each organization.

- The products work with the Integral mainframe-based applications to preserve end-user investments in existing on-line systems, while offering a foundation for cooperative processing.
- On an annualized basis, the company invests an average of 25% of every revenue dollar on ongoing development projects.

Integral initiated an aggressive growth program during the 1980s and began supplementing its internal product development efforts with the acquisition of key products and technologies to enhance its offerings of core business applications.

- In 1987, Integral acquired Sysgen, a developer of integrated human resource and financial applications for the IBM AS/400 and System/38 midrange computers. This acquisition added financial applications to Integral's product line, broadened its human resource offerings, and positioned the company to exploit the rapidly growing domestic and international midrange market.
- During 1989, Integral rounded out its financial product set with the acquisition of Data Design Associates, a leading supplier of financial applications for IBM and compatible mainframes. With the Data Design acquisition, Integral was able to offer its customers a full suite of mainframe-based core business applications.
- In 1990, Integral acquired Wright Systems, a developer of CASE-based distribution and manufacturing systems for the IBM midrange market. The Wright acquisition established Integral as a leading supplier of core business applications for the IBM AS/400 market, and enhanced Integral's skill and knowledge base in CASE engineering methods.

Integral has experienced a compounded annual revenue growth rate over the past five years in excess of 44%.

- Integral's fiscal 1992 revenue is estimated at \$60 million. Fiscal 1991 revenue exceeded \$58 million, a 2% increase over fiscal 1990 revenue of \$57.1 million.
- Operating profit for fiscal 1991 was 8.5%.

Integral's primary competitors include D&B Software Services, Computer Associates, Tesseract, and PeopleSoft.

**Key Products and Services**

Approximately 35% of Integral's revenue is derived from software license fees and royalties, 45% from software maintenance, 15% from consulting, training, and other support services, and 5% from international sales.

Integral currently has more than 6,000 licenses worldwide for 2,400 customers.

Integral's mainframe software products support human resource management and financial management.

- The products run under various operating systems, including MVS, MVS/XA, DOS/VSE, and OS, and support various data base environments, including DB2.
- Mainframe applications products are summarized in Exhibit A.

**EXHIBIT A****INTEGRAL MAINFRAME PRODUCTS**

APPLICATION AREA/PRODUCT	APPLICATION AREA/PRODUCT
<i>Financial Management</i> <ul style="list-style-type: none"> <li>- Accounts Payable &amp; Purchase Control</li> <li>- Fixed Assets</li> <li>- General Ledger</li> <li>- Materials Management</li> <li>- Project Accounting</li> </ul>	<i>Human Resource Management</i> <ul style="list-style-type: none"> <li>- Applicant Tracking</li> <li>- Benefits Management</li> <li>- Checkwrite</li> <li>- Flexible Compensation</li> <li>- Human Resource</li> <li>- HR Spectrum: Analytic and data management programs</li> <li>- Payroll Management</li> <li>- Pension Benefits Administration</li> <li>- Position Control</li> </ul>

Integral's products for midrange systems include the following:

- Integral's 4.2 financial and human resource management products (formerly Sysgen products) are available for IBM AS/400 and System/38 platforms and include Accounts Payable, Accounts Receivable, Fixed Assets, General Ledger, and Human Resource systems.
- The Integral CASE Series, acquired with Wright Systems, is a fully integrated manufacturing, distribution, and financial accounting software system developed with CASE software tools and available in either CASE models or traditional source code. The software products are available for IBM AS/400 systems and are summarized in Exhibit B.

## EXHIBIT B

## INTEGRAL CASE SERIES PRODUCTS

APPLICATION AREA/PRODUCT	APPLICATION AREA/PRODUCT
<i>Distribution</i> <ul style="list-style-type: none"> <li>- Inventory Management</li> <li>- Order, Shipment and Invoicing</li> <li>- Release Accounting</li> <li>- Purchasing and Receiving</li> <li>- Electronic Data Interchange</li> <li>- Bar Code Label Management</li> </ul>	<i>Financial</i> <ul style="list-style-type: none"> <li>- Accounts Receivable</li> <li>- Accounts Payable</li> <li>- General Ledger</li> <li>- Payroll</li> <li>- Fixed Assets</li> <li>- Human Resources               <ul style="list-style-type: none"> <li>- Defined Contributions</li> </ul> </li> <li>- Payroll</li> </ul>
<i>Manufacturing</i> <ul style="list-style-type: none"> <li>- Engineering Data Manager</li> <li>- Shop Floor Control: Discrete</li> <li>- Shop Floor Control: Repetitive</li> <li>- Master Planning System</li> <li>- Material Requirements Planning</li> </ul>	<i>CASE Tools</i> <ul style="list-style-type: none"> <li>- CaseWare development tools</li> <li>- CaseLink interface to PCs</li> <li>- Report Writer</li> </ul>

Integral has introduced several client/server-based products that offer the benefits of PC-based systems while leveraging existing mainframe resources, providing Integral's human resource and financial users a migration path to client/server computing.

- Integral's Timekeeping System, running under Windows 3.0, allows users throughout an organization to update and maintain employee time and attendance information for payroll management on PCs rather than on mainframe systems.
- InPerspective provides Integral's human resources and financial users with an intuitive, PC-based graphical user interface for distributed data access and data management.

#### *Support Services:*

Integral technical staff provide in-depth product, technical, and functional training on-site at customer locations and at training facilities worldwide. The company offers implementation-oriented consulting services, along with educational courses related to functional and technical product issues.

Through customer maintenance agreements, Integral provides additional software support, including toll-free telephone technical support, a 24-hour hotline, user conferences, user newsletters, and on-site system updates to reflect new statutory and regulatory requirements.

**Industry Markets**

Integral's products are targeted to medium- to large-sized organizations.

The company has clients in the manufacturing, banking and finance, telecommunications, education, retail, insurance, oil, health care, energy, and entertainment industries, as well as state and local government.

**Geographic Markets**

Approximately 95% of Integral's revenue is derived from the U.S. and 5% from international sources.

Integral sells and services its products directly through nine North American offices located in Atlanta (GA), Dallas (TX), Downers Grove (IL), Durham (NC), Plymouth (MI), Sunnyvale (CA), Teaneck (NJ), Walnut Creek (CA), and Willowdale (Ontario, Canada).

Integral operates a direct sales office in Singapore to sell and service its products to countries in the Pacific Rim. Distributors in Malaysia and New Zealand support Integral products in the Far East and a distributor in Spain markets Integral products in Europe.

Integral has a strong product marketing agreement with IBM in the U.S., with Information Builders throughout North America, and just recently signed a marketing and sales agreement with Synon.





## COMPANY PROFILE

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**INTEGRAL SYSTEMS, INC.**  
2185 North California Boulevard  
Walnut Creek, CA 94596-9496  
(415) 939-3900

Brian M. Aspland, President and CEO  
Private Corporation  
Total Employees: 420  
Total Revenue, Fiscal Year End  
12/31/88: \$57,000,000\*

\*Pro forma estimate

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### The Company

Integral Systems, Inc. develops, markets, and supports financial, accounting, and human resource management application software products for IBM mainframes and IBM System/38 and AS/400 midrange systems.

Effective August 10, 1989, Integral merged with Data Design Associates, Inc. of Sunnyvale (CA).

- Under the terms of the agreement between the privately held companies, Integral exchanged a combination of cash and stock for 100% of the outstanding stock of Data Design in a transaction valued at approximately \$30 million.
- Integral, founded in 1972, specializes in human resource management software for IBM mainframes. Its wholly-owned subsidiary, Sysgen, supplies financial and human resource application software for IBM midrange computers.
  - Integral has experienced a compound annual revenue growth over the past five years in excess of 44%. For the fiscal year ending December 31, 1988, the company had revenue of \$38.4 million and operating profit of \$5 million.
  - Integral had approximately 290 employees at the time of the merger.
- Data Design, founded in 1972, specializes in financial management software for IBM mainframes and intelligent workstation environments.
  - Data Design has recorded a compound annual revenue growth in excess of 23% over the past five years. For the fiscal year ending March 31, 1989, the company's revenue was \$19.2 million and operating profit was \$2.4 million, compared to revenue of \$17 million and operating profit of \$2.3 million for fiscal 1988.

- Data Design had approximately 145 employees at the time of the merger.

Integral management projects that the company's calendar 1989 revenue will exceed \$65 million.

Integral's strategy is to offer a complete portfolio of financial, accounting, and human resource management software across all of IBM's SAA-compliant platforms.

- Over the next six months, Integral product/technological announcements will include: DB2 versions of its financial applications; the approach to full Common User Access (CUA); OfficeVision capabilities for both financial and human resources products; availability of the company's first integrated financial/human resources application, GL/Payroll; and common access tools across all applications.
- Integral is currently developing a mainframe Accounts Receivable product, scheduled for availability in the fourth quarter of 1990.
- On an annualized basis, the company invests an average of 25% of every revenue dollar on ongoing development projects.

Integral's operations are currently organized into three divisions as follows:

- The Human Resources Division, based in Walnut Creek with 235 employees, supports Integral's IBM mainframe human resource management software products.
- The Financials Division, based in Walnut Creek with 135 employees, supports the financial/accounting products formerly provided by Data Design.
- The Midrange Systems Division, based in Raleigh (NC) with 50 employees, supports Sysgen's financial and human resource management products for IBM midrange systems.

Integral's 420 employees are segmented as follows:

Marketing/sales	90
Research and development	130
Customer support	90
Consulting, education, and training	70
General and administrative	<u>40</u>
	420

Integral's primary competitors include McCormack & Dodge, Computer Associates, and Management Science America.

**Key Products and Services**

Approximately 50% of Integral's revenue is derived from software license fees and royalties, 30% from software maintenance, and 20% from consulting, training, and other support services.

Integral currently has more than 4,500 software products installed in 1,500 client locations.

A summary of Integral's current software product offerings is shown in the exhibit.

Integral's mainframe products run under various operating systems, including MVS, MVS/XA, DOS/VSE, and OS, and support various data base environments, including DB2.

- Integral was the first independent software vendor to market DB2 applications for its human resources products, and has now sold over 60 licenses.

Integral's midrange products run on IBM System/38 and AS/400 systems.

Integral participated in the early test program and IBM's official announcement of OfficeVision with its integrated office systems product, HR Vision.

- HR Vision, introduced in 1989, combines microcomputer productivity tools with enterprise-wide connectivity, using IBM's Presentation Manager menus and windows and icon-driven tools.

Equal is the software architecture that underlies all Data Design financial management software applications. It allows users to operate identical, fully-featured Data Design applications on a variety of mainframe, midrange, and PC systems. Common modules and application tailoring tools include:

- DD-VIEW, an on-line, interactive query system
- DD-LINK, a micro-to-mainframe link
- DD-AIM, a general translator program
- DD-EDI, for electronic data interchange
- DD-PAINT, for customizing PC screens

## EXHIBIT

## INTEGRAL SOFTWARE PRODUCTS

HUMAN RESOURCE PRODUCTS	FINANCIAL PRODUCTS
<b>Mainframe</b> Personnel Administration Payroll Processing Applicant Management Position Control Benefits Administration Pension Administration Flexible Compensation	<b>Mainframe</b> General Ledger Accounts Payable Purchasing Fixed Asset Accounting Capital Projects
<b>Midrange</b> Personnel Administration Payroll Processing	<b>Midrange</b> General Ledger Accounts Payable Purchase Order Fixed Asset Accounting Accounts Receivable
<b>Microcomputer</b> Affirmative Action Organizational Charting Distributed Personnel Administration Compensation Planning Job Tracking HR Vision	<b>Microcomputer</b> Equal

Support services provided by Integral include the following:

- Implementation and customer support
- Administrative and operational training
- Documentation
- System upgrades and ongoing maintenance
- 24-hour, seven-day hotline access

### **Industry Markets**

Integral's products are targeted to medium- to large-sized organizations.

The company has clients in the manufacturing, banking and finance, telecommunications, education, retail, insurance, oil, health care, energy, and entertainment industries, as well as state and local government.

### **Geographic Markets**

Approximately 90% of Integral's revenue is derived from the U.S., 5% from Canada, and 5% from other international sources.

Integral markets its products through its nationwide direct sales organization. Regional sales offices are located in Greenwich (CT), Teaneck (NJ), Raleigh (NC), Downers Grove (IL), Los Angeles (CA), Atlanta (GA), Richardson (TX), Walnut Creek (CA), and Willowdale (Ontario, Canada).

During 1989, Integral initiated an international expansion program. Integral's products are now marketed in New Zealand through a distribution agreement with Government Computing Service, Ltd., a full-service computer consulting and support organization in New Zealand.

### **Computer Hardware and Software**

Integral has the following computers installed at its data centers in Walnut Creek, Sunnyvale, and Raleigh for research and development and customer support:

- 3 IBM 4381s, MVS, MVS/XA, DOS/VSE, and OS
- 1 IBM System/38, DOS
- 2 IBM AS/400s, RPG III



## COMPANY PROFILE

### INTEGRAL SYSTEMS, INC.

165 Lennon Lane  
Walnut Creek, CA 94598  
(415) 939-3900

David A. Duffield, Chairman  
Brian Aspland, President  
Private Corporation  
Total Employees: 156  
Total Revenue, Fiscal Year End  
12/31/84: \$14,500,000

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### THE COMPANY

- Integral Systems, Inc. (ISI) was founded in Delaware in 1972 to provide applications software products for human resource management. ISI also provides professional services.
- ISI 1984 revenue reached \$14.5 million, an increase of 69% over 1983 revenue of \$8.6 million. A four-year financial summary follows:

INTEGRAL SYSTEMS, INC.  
FOUR-YEAR FINANCIAL SUMMARY  
(\$ millions)

ITEM \ FISCAL YEAR	FISCAL YEAR			
	1984	1983	1982	1981
Revenue	\$14.5	\$8.6	\$5.9	\$7.0
Percent increase (decrease) from previous year	69%	46%	(16%)	56%

- ISI management projects 1985 revenue will reach \$20 million.
- Research and development expenditures were approximately \$3.5 million or 24% of 1984 revenue.
- As of December 15, 1984, ISI had 156 employees, segmented as follows:

Marketing and sales	15
Software services/customer support	83
Product development	42
General and administrative	<u>16</u>
	156
- ISI currently has 160 employees.

## INTEGRAL SYSTEMS, INC.

- Primary competition for ISI's products comes from Management Science America (MSA), McCormack & Dodge (Dun & Bradstreet), and Information Sciences.

### KEY PRODUCTS AND SERVICES

- Approximately 56% (\$8.1 million) of ISI's 1984 revenue was derived from human resource management applications software license fees and 10% (\$1.5 million) from software maintenance. The remaining 34% of revenue (\$4.9 million) was derived from professional services.
- All ISI software products operate on the IBM 360, 370, 43XX, 30XX series, and plug-compatible mainframes. In early 1985 ISI also introduced an IBM System 38 version of its products.
  - Pricing for ISI software ranges from \$35,000 to \$280,000 based on the customer's employee count, computer environment, and modules licensed.
  - The products operate in various data base and data communications environments, including the following:
    - Data base management.
      - IMS/DB.
      - DL/I.
      - IDMS/DB.
      - ADABAS.
      - DATACOM/DB.
      - TOTAL.
      - VSAM.
    - Data communications.
      - CMS.
      - CICS.
      - IMS/DC.
      - DATACOM/DC.
      - IDMS/DC.
      - COM-LETE.
      - MODEL 204.
- ISI applications software products include:
  - The Advanced Payroll System, introduced in 1973, provides labor-saving capabilities to support an organization's payroll related processes. The Advanced Payroll System has been installed in approximately 350 sites. The system provides:



## INTEGRAL SYSTEMS, INC.

- . On-line processing.
  - . On-line security.
  - . Control tables maintenance.
  - . Time reporting.
  - . Payroll adjustments.
  - . Attendance records.
  - . Special payments and taxing.
  - . Payroll computation.
  - . Tax calculations and reporting.
  - . Payroll disbursements.
  - . Payroll reporting.
  - . Payroll history.
  - . Labor and expense distribution.
  - . G/L interface.
- The Advanced Personnel Management System, introduced in 1973, provides an employee data base that can be adapted to an organization's policies and procedures. Currently, there are 250 installations. Features include:
- . Employee data base.
  - . On-line inquiry, editing, and direct updating.
  - . On-line security.
  - . Control tables maintenance.
  - . Turnaround employee profile.
  - . Affirmative action reporting.
  - . Wage and salary analyses.
  - . Departmental action notices.
  - . Skills inventory.
  - . Benefits statement.
  - . Employment history.
  - . Report writer.
  - . User-defined processes.
- Advanced Position Control provides an inventory of human resource requirements and describes all positions (filled and vacant, current and planned) within the organizational structure. There are 250 installations. Features include:
- . Position data base.
  - . On-line inquiry, editing, and direct updating.
  - . On-line security.
  - . Control tables maintenance.
  - . Staff and career planning.
  - . Human resource development.
  - . Position control.
  - . Vacancy reporting.
  - . Salary planning.
  - . Budgetary control.
  - . Position history.

## INTEGRAL SYSTEMS, INC.

- Report writer.
  - User-defined processes.
- Advanced Applicant Tracking systems, introduced in 1980, provides employment managers with immediate access to applicant and job information. Currently, there are 250 installations.
  - Applicant data base.
  - Personnel requisition processing.
  - On-line inquiry, editing, and direct updating.
  - On-line security.
  - Control tables maintenance.
  - Skills searches.
  - Applicant/requisition matching.
  - Referral/recruitment analyses.
  - EEO compliance reporting.
  - Report writer.
- Software maintenance for the first year is included in the software license fees. Each year thereafter, the software maintenance fee is approximately 15% of the license fee. Maintenance services include:
  - Toll-free 800 number to access ISI's hotline. The hotline, located in Walnut Creek (CA), is accessible 12.5 hours a day, six days a week.
  - Product enhancements.
  - Quarterly newsletters and tax and federal requirement compliance reports and tables.
  - All users may join ISI's Users Group and attend a three-day International Users Conference.
- Professional services are usually provided to existing ISI customers. Although some professional services are included in the purchase of ISI software, ISI can provide conversion assistance, program planning, and customization services at an additional cost.

### INDUSTRY MARKETS

- Although ISI's human resource management products and services are used across all industry sectors, approximately 35% of 1984 revenue was derived from educational institutions and federal, state, and local governments and 15% was derived from hospitals. The remaining 50% was derived from clients in various other industries.

### GEOGRAPHIC MARKETS

- Approximately 80% of ISI's business is derived from the U.S. and 15% is derived from Canada. The remaining 5% is derived from other foreign countries including England and Saudi Arabia.

## INTEGRAL SYSTEMS, INC.

- ISI maintains U.S. branch offices in Irvine (CA), Atlanta (GA), Flemington (NJ), Downers Grove (IL), Chanhassen (MN), and Stamford (CT).
- ISI has a Canadian branch office in Edmonton, Alberta.

### COMPUTER HARDWARE AND SOFTWARE

- The following computers are installed at ISI's data center in Walnut Creek:
  - IBM System 38, DOS.
  - 2 linked IBM 4341s, OS, DOS.



## COMPANY HIGHLIGHT

**INTEGRAL SYSTEMS, INC.**  
45 Quail Court  
Walnut Creek, CA 94596  
(415) 939-3900

David A. Duffield, President  
Private Corporation  
Total Employees: 98  
Total Revenue, Fiscal Year  
End 10/31/81: \$7,000,000

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### THE COMPANY

- Integral Systems, Inc. (ISI) was founded in Delaware in 1972 to provide application software products for human resource management.
- Total ISI revenues for fiscal year 1981 were \$7 million. ISI management claims the company has been growing 100% or better since 1979.
- ISI's 98 employees are divided approximately as follows:

- Marketing and sales	11
- Software services/customer support	42
- Product development	31
- General and administrative	14
	<u>98</u>
- Primary competition for ISI's products comes from Information Sciences, Inc., Management Science America (MSA), Tres, Cyborg Systems, Inc., Personnel Data Systems, a portion of Dyatron's General Computer Services Division (recently acquired by McCormack-Dodge), and Information Associates.

### KEY PRODUCTS AND SERVICES

- ISI offers four software products for human resource management and will introduce a fifth in the third quarter of 1982.
- All products operate on IBM 4331 and larger equipment and plug-compatible mainframes (e.g., Amdahl), Hewlett-Packard 3000s, Prime 550s, Honeywell Level 64s, Burroughs, and NCR 85s. The packages are written in COBOL and range in price from \$20,000 (for an individual package) to \$200,000 (five integrated components).
- The products operate in various data base and data communications environments, including the following:

Data Base Management

IMS  
DLI (for CICS)  
IDMS  
ADABAS  
IMAGE  
DATACOM/DB (in development)  
TOTAL (in development)  
Prime DBMS (in development)  
DMS II (Burroughs)

Data Communications

IMS  
CICS  
IDMS (in development)  
Shadow II (in development)  
HP 3000 VIEW/MPE

- The Payroll System, introduced in 1973, has been installed at approximately 200 sites. The system provides:
  - . On-Line Processing.
  - . On-Line Security.
  - . Control Tables Maintenance.
  - . Time Reporting.
  - . Payroll Adjustments.
  - . Attendance Records.
  - . Special Payments and Taxing.
  - . Payroll Computation.
  - . Tax Calculations and Reporting.
  - . Payroll Disbursements.
  - . Payroll Reporting.
  - . Payroll History.
  - . Labor and Expense Distribution.
  - . G/L Interface.
- Personnel Management System, introduced in 1973, also has approximately 200 installations. It includes the following features:
  - . Employee Data Base.
  - . On-Line Inquiry, Editing, and Direct Updating.
  - . On-Line Security.
  - . Control Tables Maintenance.
  - . Turnaround Employee Profile.
  - . Affirmative Action Reporting.
  - . Wage and Salary Analyses.
  - . Departmental Action Notices.
  - . Skills Inventory.
  - . Benefits Statement.
  - . Employment History.
  - . Report Writer.
  - . User-Defined Processes.
- Position Control System, introduced in 1979, has 25 installations. Features provided are:

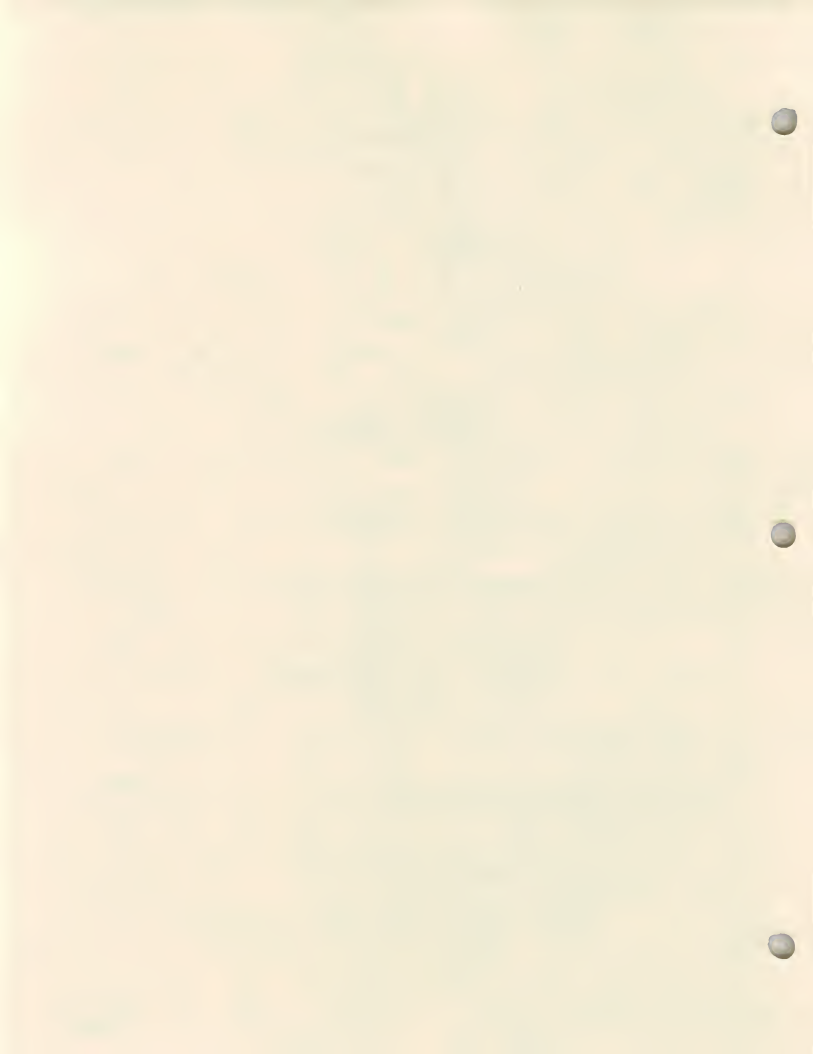
- . Position Data Base.
  - . On-Line Inquiry, Editing, and Direct Updating.
  - . On-Line Security.
  - . Control Tables Maintenance.
  - . Staff and Career Planning.
  - . Human Resource Development.
  - . Position Control.
  - . Vacancy Reporting.
  - . Salary Planning.
  - . Budgetary Control.
  - . Position History.
  - . Report Writer.
  - . User-Defined Processes.
- Applicant Tracking System, introduced in 1980, has 28 installations. Features include:
- . Applicant Data Base.
  - . Personnel Requisition Processing.
  - . On-Line Inquiry, Editing, and Direct Updating.
  - . On-Line Security.
  - . Control Tables Maintenance.
  - . Skills Searches.
  - . Applicant/Requisition Matching.
  - . Referral/Recruitment Analyses.
  - . EEO Compliance Reporting.
  - . Report Writer.
- ISI plans to make available its announced ERISA Pension System in the third quarter of 1982. Features will include:
- . Pension Plan Maintenance.
  - . Retirement Calculations and Reporting.
  - . Hours and Compensation History.
  - . Vesting and Benefit Service Calculations.
  - . Break-in-Service Processing.
  - . Retirement Projections.

**INDUSTRY MARKETS** ISI's human resource management products are used across industry sectors.

**GEOGRAPHIC MARKETS** Approximately 90% of ISI's business is derived from the U.S. The remaining 10% comes from Canada.

#### **COMPUTER HARDWARE**

- Hewlett-Packard 3000.
- Prime 550.
- IBM System/38.
- IBM 3081 (direct lines to two service bureaus).





**INTEGRATED HEALTH  
SYSTEMS, INC.**

4275 Executive Square  
Suite 550  
La Jolla, CA 92037  
Phone: (619) 453-3600  
Fax: (619) 453-2832

CEO:	John F. Perez
COO:	Nadine Hays
Status:	Private Company
Total Employees:	55
Total Revenue:	\$6,000,000*
Fiscal Year End:	6/30/93

\* INPUT estimate

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**Key Points**

- Integrated Health Systems, a supplier of IBM AS/400-based software and services to the health care industry, was purchased from National Healthtech Corporation in June 1993 by a group of investors.
- John Perez has been named CEO and Nadine Hays, formerly of National Healthtech, was named COO.
- During 1993, Integrated Health Systems announced a new Clinical Documentation System, a new Quality/Utilization Management System, and a new Cost Accounting System.
- In 1992, the company launched its "BOSS" offering, an IBM AS/400-based software package designed to meet the basic information requirements of small hospitals.

**Company  
Description**

Integrated Health Systems develops, markets, and supports IBM AS/400-based applications software products and associated support services for the health care industry. The company is an IBM Industry Application Specialist Business Partner for the health care industry.

Integrated Health Systems currently operates as a privately held corporation.

**Company  
History**

Integrated Health Systems was founded as a private company in 1979.

In February 1989, Integrated Health Systems was acquired by Dynatech Corporation of Burlington (MA). Dynatech supplies a range of equipment, instruments, and systems related to information display, measurement, analysis, and control for communications, scientific, and medical and diagnostic applications.

In April 1991, Integrated Health Systems was acquired from Dynatech by National Healthtech Corporation and operated as a subsidiary of National Healthtech until June 1993.

In June 1993, Integrated Health Systems was purchased from National Healthtech by a group of investors and now operates as a standalone, privately held company.

**Strategy**

Integrated Health Systems plans to incorporate advanced technologies into its products, such as client/server, GUI, optical disk storage, and wireless/portable systems, with a strong emphasis on clinical systems development.

**Financials**

INPUT estimates fiscal 1993 revenue was \$6 million, up 20% from fiscal 1992 estimated revenue of \$5 million.

**Market  
Financials**

One hundred percent of Integrated Health Systems' revenue is derived from the health care industry.

Clients range in size from small community hospitals of 40 beds to large, multiple service, regional medical centers of 470 beds.

**Geographic  
Markets**

One hundred percent of Integrated Health Systems' fiscal 1993 revenue was derived from the U.S., including Hawaii.

## Key Products and Services

One hundred percent of Integrated Health Systems' revenue is derived from application software products and associated support services.

Integrated Health Systems offers integrated information management systems designed and written specifically for the IBM AS/400 computer in native RPG/400 code. Integrated Health Systems' products address the three primary areas of patient management, financial management, and clinical management.

The greatest area of growth for new products in recent years has been in clinical management systems.

- During 1993, Integrated Health Systems announced a new Clinical Documentation System (replacing an earlier generation Nursing Information System) and a new Quality/Utilization Management System (replacing an earlier generation Utilization Review System).
- The Clinic Care System for outpatient treatment facilities coordinates a 24-hour outpatient environment and permits central access of information in the areas of patient care, financial applications, and clinical management.

Integrated Health Systems software applications include the following:

- Patient Accounting:
  - Patient registration
  - Patient billing
    - Contract management
    - All payer logs
  - Accounts receivable
  - Medical records
    - Abstracting
    - DRG/case mix reporting
    - Chart management
- Financial Management:
  - General ledger
    - Budgeting
    - Statistics
    - Financial reporting
  - Equipment management and supply processing management
  - Accounts payable
  - Cost accounting

- Clinical Management:
  - Clinical documentation system
  - Physician access
  - Order communications
  - Resource scheduling
  - Quality/utilization management
  - Pharmacy management

In 1992, the company launched its "Basic Options Software System" (BOSS) offering, an economical software package designed to meet the basic information requirements of small hospitals.

- The BOSS offering includes Integrated Health Systems' Core Financial System (Patient Registration, Patient Billing, Accounts Receivable, Medical Records, Accounts Payable, and General Ledger) as well as the Core Patient Care System (Order Communications and Physician Access) with optional modules available.
- The company offers turnkey installation, which is designed to install applications within 90 days of contract signing (with no modifications).

Integrated Health Systems currently has its software installed at over 55 health care facilities nationwide.

## **Marketing and Sales**

Integrated Health Systems markets its products through its direct sales force.

## **Alliances**

Integrated Health System has alliances with various vendors as follows:

- Precision Health Systems (payroll/human resources management, DRG optimizer)
- Cognos (report writers)
- IBM Application Specialist for health care industry

**Clients**

Major clients include Alta Bates Medical Center (Berkeley, CA), Queen of Angels/Hollywood Presbyterian Medical Center (Los Angeles, CA), Salick Health Care, Inc. (Los Angeles, CA), and Holy Cross Health Systems Corporation.

**Competitors**

Major competitors include GTE Health Systems, IBAX, and HBO & Company.



## COMPANY PROFILE

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### **INTELLICORP**

1975 El Camino Real West  
Mountain View, CA 94040-2216  
(415) 965-5500

Katharine C. Branscomb, President and  
CEO  
Thomas B. Halfaker, COO  
Public Corporation, NASDAQ  
Total Employees: 150 (12/91)  
Total Revenue, Fiscal Year End  
6/30/91: \$13,918,000

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### **The Company**

IntelliCorp develops, markets, and supports application development and delivery software development tools that bring the benefits of object- and rule-based systems to business applications.

Recent significant events include the following:

- On October 30, 1991, IntelliCorp and KnowledgeWare jointly announced that the previously announced definitive merger agreement, under which KnowledgeWare was to acquire IntelliCorp in a stock-for-stock exchange, was terminated. Both companies are continuing discussions with respect to possible cooperative development and/or marketing arrangements aimed at offering integrated CASE solutions for the UNIX marketplace.
- Katharine C. Branscomb, formerly IntelliCorp's President and COO, has been appointed President and CEO and Thomas B. Halfaker has been appointed COO of IntelliCorp in connection with an executive reorganization. Thomas P. Kehler, former Chairman and CEO, has resigned his positions with the company.
- IntelliCorp intends to take steps during the second quarter of fiscal 1991 (ending December 31, 1991) to revise operating plans and expense levels, including incurring as yet undetermined restructuring charges during the quarter.

IntelliCorp's strategy is to provide software products that can be used to develop a range of applications.

- IntelliCorp's initial product, the Knowledge Engineering Environment™ (KEE®) System, was introduced in 1983 and was the first commercial artificial intelligence software product. The

KEE System is written in Common LISP, a specialized programming language.

- As part of IntelliCorp's recent focus on general purpose computing environments (primarily UNIX workstations and PCs), during 1990 the company announced the KAPPA family of application development and delivery products written in the industry-standard C programming language and intended to be compatible with other business applications.
- The KAPPA product announcement followed IntelliCorp's April 1990 acquisition of MegaKnowledge, Inc. of Cambridge (MA) for approximately \$3.1 million in cash and stock plus contingent payments based on future performance. MegaKnowledge was the initial developer of KAPPA-PC, an MS-DOS-based application development tool.

IntelliCorp's fiscal 1991 revenue was \$13.9 million, a 39% decrease from fiscal 1990 revenue of \$22.8 million. Net losses of nearly \$14.8 million for fiscal 1991 include a corporate restructuring charge of \$4.4 million, and a charge of \$3.2 million for the cumulative effect of a change in the the method of accounting for revenue. A five-year financial summary follows:



**INTELLICORP  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	6/91	6/90	6/89	6/88	6/87
Revenue	\$13,918	\$22,762	\$21,963	\$20,433	\$20,352
· Percent change from previous year	(39%)	4%	7%	--	9%
Income (loss) before taxes	\$(11,628)	\$(826)	\$960	\$(1,474)	\$(3,987)
· Percent change from previous year	(a) *	(186%)	165%	63%	(177%)
Net income (loss)	\$(14,796)	\$(826)	\$914	\$(1,474)	\$(3,987)
· Percent change from previous year	(b) *	(190%)	162%	63%	(181%)
Earnings (loss) per share	\$(1.86)	\$(0.11)	\$0.12	\$(0.21)	\$(0.57)
· Percent change from previous year	(b) *	(192%)	157%	63%	(176%)

\* Percent change exceeds 1,000%.

- (a) Includes a corporate restructuring charge of approximately \$4.4 million and a gain of \$1.8 million from the sale of the company's remaining interest in IntelliGenetics to Amoco Corporation.
- (b) Includes the cumulative effect of a change in the method of recognition of revenue of \$3.2 million (\$0.40 per share).

Fiscal 1991 results were adversely influenced by the effect of a decline in the demand for Common LISP-based products (on which the KEE System is based), the concurrent introduction of new products, and by the generally recessionary business climate in the U.S.

Research and development expenditures were \$4.9 million in fiscal 1991, \$5.0 million in fiscal 1990, and \$3.9 million in fiscal 1989.

As of June 30, 1991, IntelliCorp had approximately 147 employees. The company currently has about 150 employees worldwide.

IntelliCorp's principal competitors include Neuron Data, AION Corporation, AICorp, and Inference Corporation.

### **Key Products and Services**

Approximately 78% of IntelliCorp's fiscal 1991 revenue was derived from software product licenses and associated support services. The remaining 22% of revenue was derived from contract research and consulting professional services.

A three-year summary of source of revenue follows:

**INTELLICORP  
THREE-YEAR SOURCE OF REVENUE SUMMARY  
(\$ thousands)**

ITEM	FISCAL YEAR					
	6/91		6/90		6/89	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Software and related services	\$10,864	78%	\$18,467	81%	\$17,233	78%
Professional services	3,054	22%	4,295	19%	4,730	22%
<b>TOTAL</b>	<b>\$13,918</b>	<b>100%</b>	<b>\$22,762</b>	<b>100%</b>	<b>\$21,963</b>	<b>100%</b>

IntelliCorp develops, markets, and supports knowledge processing software products for a range of hardware environments. The company's products are used to create knowledge-based systems that enhance the productivity of users by solving difficult problems, support decision making, and distribute scarce technical or managerial expertise.

*KAPPA Family of Products:*

The KAPPA family of products are targeted for the mainstream business application development market. There are currently over 300 copies of KAPPA systems installed worldwide.

PROKAPPA is a general-purpose application development environment and a set of delivery components for UNIX and X Windows workstations targeted for professional application programmers.

- The application development environment offers programmers development and debugging tools that enhance productivity in building and maintaining applications. The delivery components provide a foundation for integrating knowledge-based system technology with conventionally developed software applications.
- The product is available on select Sun, HP, and IBM workstations and is priced at \$14,450 for a development system license and \$2,495 for a delivery components license.

KAPPA-PC, based on C, is a high-performance object-oriented software environment for developing and delivering PC-based business applications for a work group or department.

- KAPPA-PC, version 2.1, commercially released in June 1991, runs on IBM AT or PS/2 or compatible systems under MS-DOS and Microsoft Windows 3.0 and provides memory management and data exchange with other applications. Versions for OS/2 and certain Apple Macintosh platforms are currently under development.
- Standard U.S. prices for an initial license of development KAPPA-PC is \$3,500 and \$450 for a delivery license. The standard support package, including one year of software maintenance and telephone support, is \$850.

*Common LISP-Based Software Products:*

IntelliCorp continues to market the Common LISP-based KEE System which is typically used for complex applications, enabling end users to develop their own knowledge-based systems for commercial and scientific applications.

- The principal technologies represented and integrated by the KEE System are rule-based reasoning, frame-based representation, and object-oriented programming.
- The KEE System, version 4.0 (released in February 1991), is available on the HP 9000 Series 300 and 400 workstations and on the Sun-4. KEE 4.0 provides full support for the X Windows interface, a color capability, and an enhanced development environment.
- The KEE System, version 3.1 is currently available for use on the Sun-3 and Sun-4, HP 9000/300 and HP 9000/400 workstations, and selected binary-compatible clone hardware systems.
- The standard price for an initial workstation KEE System license, versions 4.0 or 3.1, is \$30,000. The fee for a support package (which includes basic classroom training and one year of software maintenance and support) is \$7,700. Volume discounts are available.
- In June 1990, IntelliCorp granted an exclusive license to Symbolics to sublicense the KEE System and other IntelliCorp Common LISP-based products to customers for use on Symbolics workstations and to provide support and maintenance for these customers.

- Since KEE was introduced in 1983, IntelliCorp has licensed over 3,300 copies of KEE.

KEE/370: In October 1987, IntelliCorp entered into an agreement with IBM to develop a version of the KEE System for the IBM System/370 series of mainframes. Shipment of KEE/370 began in March 1989 and, initially, the product was owned by IBM and marketed by both IBM and IntelliCorp. In December 1989, IntelliCorp reacquired the product from IBM and currently has a price of \$95,000 for a one-time charge license and a \$15,000 annual fee per license for a software maintenance and support package.

SimKit™ software is a graphics-oriented, discrete-event simulation package used to create knowledge-based simulations. SimKit, version 1.4, is available on Sun-3 and Sun-4 workstations, and on the HP 9000/300 and /400 workstations.

IntelliCorp offers restricted licenses of certain of its Common LISP-based products where customers agree not to use certain development capabilities of the software. Restricted KEE System licenses are \$5,000 per copy, with volume discounts available.

ConfigurableKEE™, introduced in June 1989, is used to build a run-time module loading only those KEE subsystems required to support the functionality of the application, reducing real memory requirements. ConfigurableKEE, version 4.0, is available on Sun-4 workstations and HP 9000/300 and /400 workstations and licenses for \$5,000 per copy, including the first year of software support.

In November 1988, IntelliCorp began licensing KEE Booster Module software to customers seeking to extend KEE System functionality, optimize applications developed using the KEE System, or otherwise benefit from the integration or use of such modules.

- The modules are available on Sun-3 and Sun-4 workstations and IntelliCorp will port a module to a platform for a customer on a contract basis.
- One-time license fees for the the modules range from \$5,000 to \$50,000 (including support, training, and installation), depending on the module selected.

KEEtutor™, introduced in January 1988, is a video- and text-based training package that teaches basic KEE System use without classroom attendance.

- KEEtutor is available for Symbolics, Sun-3 and Sun-4, Texas Instruments Explorer and MicroExplorer, DEC VAXstation workstations, 80386-based PCs, and on IBM-RT and HP Series workstations.
- KEEtutor is priced at \$4,000 to \$5,000 per copy, depending on the number of copies of supporting materials ordered by the customer.

IntelliCorp provides, on a contract basis, custom development professional services. The company undertakes these projects to help customers successfully commence development of their applications and to help broaden the capabilities of IntelliCorp's products.

### **Industry Markets**

IntelliCorp's customers are mainly large corporations, government agencies, and universities. Products are marketed to clients in the aerospace, energy, finance, manufacturing, and telecommunications industries and to the federal government. The company's customers are primarily large corporations, government agencies, and universities.

Units of General Motors accounted for 13% of total revenue in fiscal 1991. General Motors, IBM, and CSK Corporation accounted for 12%, 12%, and 10%, respectively, of revenue in fiscal 1990. The federal government accounted for 13% of revenue in fiscal 1989.

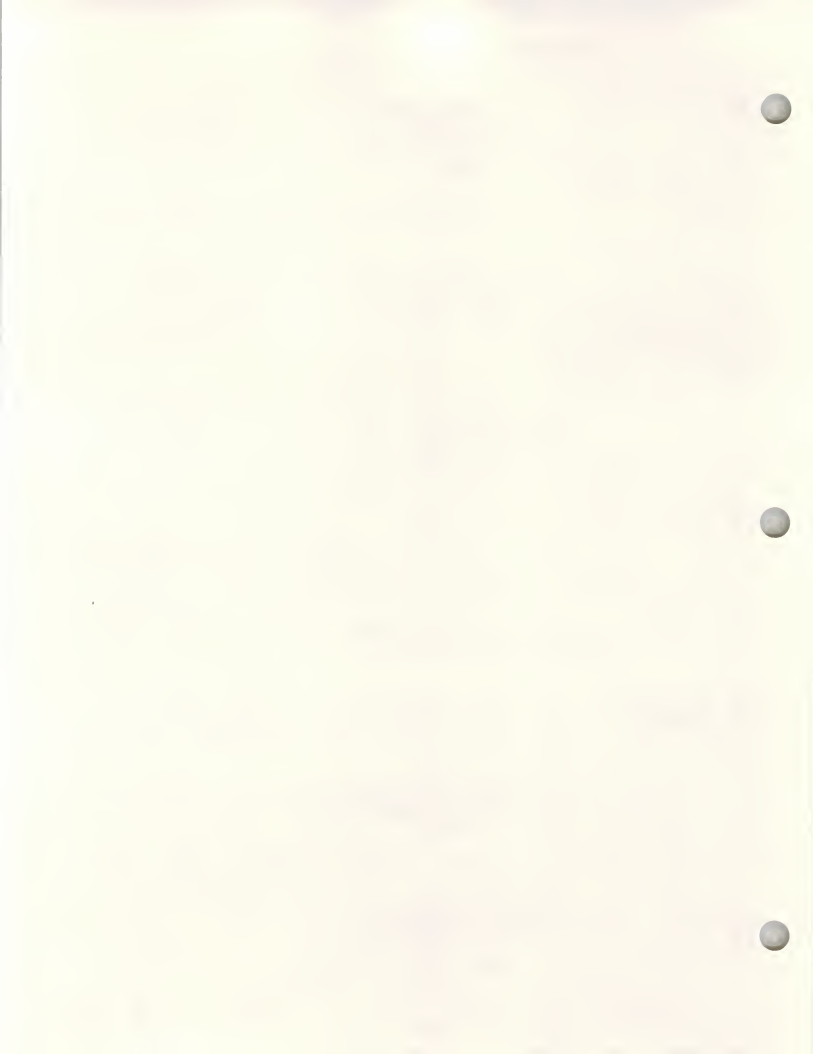
IntelliCorp markets its products directly and through VARs, OEMs, representatives, and distributors.

### **Geographic Markets**

Approximately 62% (\$8.6 million) of IntelliCorp's fiscal 1991 revenue was derived from the U.S. The remaining 38% of revenue was derived from export revenues from customers in Europe and the Far East.

In addition to its headquarters in Mountain View (CA), the company has sales offices in Boston, Chicago, Detroit, London, Munich, and the New Jersey and Washington, D.C. areas.

IntelliCorp's products are distributed by CSK Corporation in Japan, certain distributors in Hong Kong, Italy, Spain, South Korea, Taiwan, and the U.K., and independent sales representatives in France, Canada, and Israel.



## COMPANY PROFILE

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### **INTELLIGENT BUSINESS SYSTEMS, INC.**

185 Plains Road  
Milford, CT 06460  
(203) 878-7960

Frank A. Battaglia, President  
Private Corporation  
Total Employees: 40  
Total Revenue, Fiscal Year End  
12/31/90: \$5,250,000\*

\*INPUT estimate

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### **The Company**

Intelligent Business Systems, Inc., founded in August 1983, provides information retrieval and presentation software systems for use with relational data base systems. The company's flagship product, EasyTalk®, enables non-DP business users to create their own reports, graphs, and data extracts from complex relational data bases with conversational English requests.

- During its first three years, the company perfected the core EasyTalk technology by working cooperatively with several smaller firms in the wholesale distribution industry. An offering that combined Intelligent Business Systems' technology with wholesale distribution accounting application software (EasyTalk I) was marketed on a limited basis during this period.
- Major financial backing by Fortune 100 investors, including Xerox Corporation and Olivetti, began in 1986. A management team was formed to transform Intelligent Business Systems' technology into a general-purpose data base front-end tool that could be used with any application and could be implemented by the user without any knowledge of the proprietary internal technologies.
- The result was EasyTalk, which was beta-tested in 1988 by four Fortune 100 firms and released nationally in May 1989. Beta-sites included The Hartford Insurance Group, a major pharmaceutical firm, and two manufacturers.

Intelligent Business Systems' current strategy is to build a solid end user base of Fortune 100 accounts (across industries) using EasyTalk for mission-critical applications, as well as other distribution channels through OEMs and VARs.

- Two of Japan's largest computer hardware manufacturers, as well as one U.S.-based manufacturer, have already signed technology

licensing agreements to integrate EasyTalk into their own product lines.

- A VAR program has been recently introduced, with a major vendor of laboratory information systems already committed to offering EasyTalk as an integrated option with its own software products.
- Intelligent Business Systems has also signed a non-exclusive agreement with a distributor in the U.S. federal government market.
- Intelligent Business Systems is a cooperative marketing partner with Oracle Corporation, and will soon announce additional partnerships in the client/server computing area.

INPUT estimates Intelligent Business Systems' 1990 revenue was \$5.25 million, compared to \$5 million in 1989. It is estimated that 1991 revenue will reach \$10 million, primarily due to increased international business.

As of August 1991, Intelligent Business Systems had approximately 40 employees, segmented as follows:

Marketing and sales	8
Customer support, development, and computer operations	25
General and administrative	7
	40

Intelligent Business Systems' major competitors are AICorp and Natural Language Inc.

### **Key Products and Services**

Approximately 85% of Intelligent Business Systems' 1990 revenue was derived from EasyTalk sales and associated maintenance services, and 15% from professional services consulting and development work for OEMs.

EasyTalk combines natural languages and expert systems into an information retrieval system for non-DP end users.

- EasyTalk's Natural Language Processor interprets the user's conversational English query, and determines the meaning of the query at a conceptual level.
- The integrated Database Expert System (DBES) uses the captured expertise of the data base designer, with application-



independent rules of SQL processing, to simulate the thought process of a trained SQL technician to locate the required data and select the most appropriate tables and columns for the report. It then generates optimized SQL code to retrieve the data.

- The EasyTalk Query System provides end-user features to support English querying of a data base.
- The Developer Toolkit provides a window-driven method to "teach" EasyTalk about a specific application.

EasyTalk currently runs only with the ORACLE relational data base management system on DEC VAX hardware.

- A version for Sun Microsystems' UNIX workstations was introduced in September, with support for other UNIX platforms to follow.
- A wholly new architecture of EasyTalk is under development that will provide English access to data bases on IBM mainframes, UNIX, or VAX-hosted machines from PC-based "clients" running on a PC LAN. The first release of this product is planned for the first half of 1992.

Pricing for the current DEC VAX/ORACLE product ranges from \$4,000 on a single user VAXstation to \$140,000 on a VAX 9000. The price includes EasyTalk Query System, Developer Toolkit, full documentation, developer training, and maintenance for the first year.

There are currently more than 75 installations of EasyTalk in more than 30 major accounts across the U.S. and Canada. These include firms such as Ford Motor Company, Bristol-Myers Squibb, Monsanto Chemical, The University of Toronto, British Columbia Hydro, the U.S. Pentagon, and Sea-Land Corporation.

### Industry Markets

Intelligent Business Systems markets EasyTalk across all industries, including financial services, manufacturing, wholesale distribution, shipping/transportation, education, and pharmaceuticals.

Since EasyTalk is currently an "add-on" to ORACLE data bases, it is targeted at users, VARs, and OEMs of that data base system.

Development plans, together with OEM and VAR agreements, will result in future versions of EasyTalk that will access virtually any other RDBMS or file structure. These include DEC's Rdb and

IBM's DB2. The availability of these versions will also add new distribution channels for the product.

### **Geographic Markets**

Over 90% of Intelligent Business Systems' 1990 revenue was derived from the U.S. and 10% from international sources.

It is estimated that approximately 50% of 1991 revenue will come from the U.S. and 50% from international sources.

Direct and VAR sales efforts for EasyTalk are focused on the U.S. and Canada. The company operates from its headquarters in Milford (CT) and from a branch office in Washington, D.C.

Internationally, OEM technology transfer/reseller agreements have been signed with two major Japanese hardware manufacturers. In addition, the company plans to begin building an international distribution channel in 1992, initially through relationships with local distributors in each country.

### **Computer Hardware and Software**

Intelligent Business Systems currently has the following hardware installed in Milford (CT):

- 2 VAX 3300/3400 minicomputers
- 5 clustered MicroVAX IIs
- 16 VAXstation workstations
- 2 Olivetti UNIX minicomputers
- 3 Sun SPARCstations
- Numerous IBM/compatible and Apple Macintosh microcomputers

The DEC machines all run VMS. Each DEC and UNIX processor runs the ORACLE RDBMS, plus LISP and C, which are used for EasyTalk development.

IBM PS/2s and compatibles, as well as Apple Macintoshes, are used for development, administrative work, desktop publishing, and financial planning.

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**INTELOGIC TRACE, INC.**

P.O. Box 400044  
San Antonio, TX 78229-8422  
Phone: (210) 593-5700  
Fax: (210) 593-2225

Chairman & Office of the President:	Asher B. Edelman
Office of the President & COO:	J. Alec Wilder
Status:	Public Corporation
Total Employees:	996 (3/93)
Total Revenue:	\$103,647,000
Fiscal Year End:	7/31/92

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**Key Points**

- Intelogic Trace (I T) was formed in 1985 as a spin-off of Datapoint Corporation's U.S. Customer Services Division, and expanded into Canada in 1990 with the acquisition of Datapoint's Canadian subsidiary.
- On-site maintenance is the foundation of I T's business. As a full-service provider, I T offers technical support services ranging from staging to hotline telephone support. To distinguish itself in the service marketplace, I T tailors offerings to the requirements of the client.
- In August 1992, I T sold its hardware sales and leasing, and applications software subsidiaries. These units generated approximately \$38 million in revenue during fiscal 1991.
- In order to aggressively lower costs, effective the beginning of fiscal 1993, I T reduced compensation of all employees, officers, and members of the board of directors by an average of 6%. I T also has consolidated its field sales and operations functions into nine business units throughout the U.S. and Canada.

**Company Description**

I T is one of North America's largest independent providers of computer maintenance and support services for end users, manufacturers, and resellers of computer and telecommunications systems. I T provides on-site service and technical support for local-area networks and Wang computing systems. In addition, I T has multivendor capabilities for microcomputers and peripherals, and offers a complete line of diagnostic tools and services for the self maintainer.

I T operated as Datapoint's domestic Customer Service Division from 1968 until July 1985 when it was became a separate company.

**Acquisitions/  
Divestitures**

During fiscal 1992, I T acquired Datapoint Canada Inc., which sells and services computer equipment throughout Canada. It now operates as Intelogic Trace Canada Inc. (I T Canada). The acquisition provided I T with a low cost entry into the Canadian market.

In September 1992, I T completed the sale of its subsidiaries, Intelogic Trace TexCom Group and The Lockwood Association, to Gemini Systems Leasing Corp. for approximately \$26.1 million. These subsidiaries provided computer hardware sales and leasing, and applications software products.

**Financials**

I T's fiscal 1992 revenue was \$103.6 million, a 2% decrease from fiscal 1991 revenue of \$105.5 million. Net losses were \$16.9 million, compared to net losses of \$13.3 million for fiscal 1991.

- Service revenue remained constant from fiscal 1991 to fiscal 1992, however, reduced hardware sales from I T's Canadian unit resulted in lower total revenue.
- Total cost of revenue was \$83.1 million, \$83.8 million, and \$78.3 million for fiscal 1992, 1991, and 1990, respectively.
- Operating expenses were \$27.1 million, \$28.8 million, and \$26.4 million for fiscal 1992, 1991, and 1990, respectively.
- I T wants to reduce its cost structure to a level consistent with service margins in the competitive market, yet be sufficient enough to cover interest expense on debt. Interest expense on debt was \$7.1 million, \$7.4 million, and \$10.3 million for fiscal 1992, 1991, and 1990, respectively.

In the three-year summary that follows, financials prior to fiscal 1992 have been restated to reflect I T's computer hardware sales and leasing, and applications software businesses as discontinued operations.

**INTELOGIC TRACE INC.  
THREE-YEAR FINANCIAL SUMMARY  
(\$ millions, except per share data)**

ITEM	FISCAL YEAR		
	7/92	7/91	7/90
Revenue	\$103.6	\$105.5	\$107.7
Percent change from previous year	(2%)	(2%)	(3%)
(Loss) from continuing operations before taxes (a)	\$(15.8)	\$(17.6)	\$(31.8)
(Loss) from discontinued operations	\$(1.6)	\$(5.5)	\$(0.1)
Net income (loss)	\$(16.9)	\$(13.3)	\$(19.7)
Earnings (loss) per share	\$(1.46)	\$(1.15)	\$(1.56)

(a) Includes reorganization charges of approximately \$2.4 million, \$2.1 million, and \$2.1 million for fiscal 1992, 1991, and 1990, respectively.

Revenue for the six months ending January 31, 1993, was \$46.2 million, compared to \$52.0 million for the same period in 1992. Net income was \$86,000, compared to net losses of \$6.6 million for the same period a year ago. This was the second straight quarter of operating income for the company. Streamlining of operations, along with increased emphasis on efficiency are credited by company officials with the improved results.

### Employees

As of July 1992, I T had 1,216 employees. The company currently has 996 employees.

### Competitors

Key competitors in the computer maintenance area include established independent maintenance organizations such as BancTec, Bell Atlantic Business Systems Services, GE Customer Service Division, IDEA Servcom, and established manufacturers of computer equipment.

## Key Products and Services

Approximately 98% of I T's fiscal 1992 revenue was derived from maintenance services and 2% from equipment sales. A three-year source of revenue follows:

### INTELOGIC TRACE INC. THREE-YEAR SOURCE OF REVENUE SUMMARY (\$ millions)

	FISCAL YEAR					
	7/92		7/91		7/90	
ITEM	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Service	\$101.3	98%	\$101.5	96%	\$104.8	97%
Equipment sales	2.3	2%	4.0	4%	2.9	3%
<b>TOTAL</b>	<b>\$103.6</b>	<b>100%</b>	<b>\$105.5</b>	<b>100%</b>	<b>\$107.7</b>	<b>100%</b>

I T is a full-service vendor providing total systems support, including computer hardware maintenance via its field service network throughout the U.S. and Canada, and associated support services.

I T's expertise is in the following areas:

- **Microcomputers:** Providing maintenance services for customers with multiple microcomputers in geographically dispersed locations for virtually every name-brand microcomputer, including IBM, Compaq, Hewlett-Packard, Televideo, Wyse, AST, and Samsung.
- **Wang Systems:** I T offers a service package for Wang system users, incorporating specially developed diagnostics, guaranteed phone and on-site response times, and ready access to local and regional parts.
- **Novell LANs:** I T is an authorized Novell Support Organization, offering premium maintenance and support programs for Novell users. I T has also been a leading supplier of maintenance services for ARCNET-based LANs for over 15 years.

#### *Computer Hardware Maintenance:*

Approximately 88% of I T's service revenue is derived from service agreements and the remainder from time and materials services.

- Services are provided on an on-site, carry-in, and mail-in basis nationwide.

- In response to customer demands, I T has expanded its on-site maintenance offerings to include over 2,000 products from over 150 vendors.
- I T has service agreements with end users, major equipment manufacturers, and value-added resellers. In addition, I T is the Authorized Service Provider for a number of manufacturers, including AST, Datapoint, Grid, Magna, Novell, Teknekron, and Toshiba.
- Approximately 24% of I T's fiscal 1992 maintenance service revenue came from servicing Datapoint products, compared to 35% in fiscal 1991 and 46% in fiscal 1990.

I T maintains an on-hand supply of spare parts to be used as replacement parts in servicing its customers.

*Support Services:*

In addition to maintenance, I T offers the following support services:

- Repair and refurbishment services
- Technical telephone support
- End-user hotline support
- Staging and integration
- Installation and upgrade services
- Premium network support, including security analysis, performance analysis, network documentation
- Help desk development
- Asset management
- Education and training

I T is broadening its service, offering a line of technical tools, services, and resources for the self-maintainer market. Offerings under this program include the following:

- ExperTrace™ diagnostic software
- TraceCard™ diagnostic board

- Watch IT<sup>TM</sup> network analysis software
- FirsTrace<sup>TM</sup> workstation diagnostics
- Tech in the Box<sup>TM</sup>, a portable computer filled with hardware and software diagnostic tools
- Bulletin Board access to upgrades and the *Self-Maintainers' Forum*
- Quick reference guides
- Telephone support
- On-site support on a time-and-materials basis
- Video-taped and classroom training

### Industry Markets

Although Intelogic Trace's services are provided across all industries, the majority of I T's service revenue is derived from the following industries: manufacturing, government, transportation, insurance, and finance.

I T markets its maintenance services in the following ways:

- Through a national sales force, I T pursues third-party installation, service and support agreements with end users.
- I T enters into agreements with manufacturers to provide authorized service to their end users during the warranty period.
- Agreements are established with value-added dealers, distributors, and systems integrators (resellers) that market I T's services under the reseller's name.
- I T enters into subcontracting agreements to perform services for other vendors, typically a seller of equipment, in which the seller serves as the general contractor for all maintenance services.
- Solicitation agreements are entered with independent sales organizations, dealers, and distributors that receive a commission for obtaining service agreements for I T.

### Geographic Markets

Approximately 95% of Intelogic Trace's service revenue comes from the U.S. and 5% from Canada. I T operates over 200 service locations throughout the U.S. and Canada.



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**INTERGRAPH CORPORATION**

One Madison Industrial Park  
Huntsville, AL 35894-0001  
Phone: (205) 730-2000  
Fax: (205) 730-8300

Chairman & CEO: James W. Meadlock  
President: Elliott James  
Status: Public  
Employees: 10,300  
Revenue: \$1,176,661,000  
FYE: 12/31/92

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**Key Points**

- Intergraph announced a commitment to provide Windows NT-based products in 1993, reflecting a change in software approach, from custom-made solutions to modular, standardized software solutions.
- Intergraph is a market leader in the rapidly growing federal market for geographic information systems.
- In December 1992, a key Intergraph contract for \$422 million computer-aided design (CAD) was overturned by the General Services Administration Board of Contract Appeals (GSABCA).
- In early 1993, Intergraph announced an upgrade of the Macintosh version of one of the most widely used CAD design packages, MicroStation Mac 4.2. This package is positioned to challenge the leading product in the CAD software market, AutoCAD, produced by Autodesk.
- Intergraph faces a significant challenge in aggressively moving its hardware strategy to a multiplatform approach.

**Company  
Description**

Currently, one of the largest computer-aided design (CAD) companies, Intergraph Corporation, originally incorporated in 1969 as M&S Computing, Inc., designs, manufactures, markets and supports interactive computer graphics systems, expert systems, CAD/CAM applications software and systems, and geographic information systems.

**Operations/  
Structure**

Corporate headquarters headquarters for Intergraph are located in Huntsville, AL.

*Divisions, Affiliates and U.S. Subsidiaries*

Advanced Microprocessor Division  
Palo Alto, CA

ANA Tech Division  
Littleton, CO

Bentley Systems Inc., an Intergraph Affiliate  
Exton, PA

Federal Systems Division  
Washington, D.C.  
Huntsville, AL  
Frankfurt, Germany  
Swindon, U.K.

Intergraph Electronics  
Huntsville, AL  
Mountain View, CA  
Boulder, CO  
Paris, France

Optronics Division  
Chelmsford, MA

Quintus Corporation  
Palo Alto, CA

*Sales Offices*

Intergraph has sales offices located in 34 states in the U.S., 9 Middle Eastern locations, 11 Asia-Pacific locations and in 20 European nations.

**Company Strategy**

Intergraph has taken a strong lead in building integrated solutions across application areas in CAD/CAM/CAE markets. The company has succeeded in winning large contracts and is known for providing strong service and support.

Intergraph has a leading market position in architecture, engineering and construction and geographic information systems (GIS). However, the company needs to expand its market position in the mechanical computer aided design (MCAD) market.

Intergraph is focusing on repositioning its workstation hardware in 1993. Intergraph's hardware challenge is to move to a multiplatform architecture that will expand market acceptance.

*Industry Markets*

In 1992, Intergraph restructured their sales and support organizations along industry lines. The worldwide direct sales force is segmented to focus on key industries in which Intergraph provides broad workflow solutions: transportation, utilities, local government, defense, construction, publishing, vehicle design, electronics and manufacturing.

**Financials**

Total 1992 revenue was approximately \$1,176 million, a 2% decrease over 1991 revenue of \$ 1,195 million. Net income decreased, from \$71 million in 1991 to \$8 million in 1992. A five-year financial summary appears on the following page:

**INTERGRAPH CORPORATION  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	1992	1991	1990	1989	1988
Revenue	\$1,176,661	\$1,195,378	\$1,044,617	\$860,062	\$800,160
• Percent (decrease) increase from previous year	(2%)	14.4%	21.4%	8%	
Income before taxes	\$12,392	\$111,893	\$98,317	\$119,372	\$138,799
• Percent increase (decrease) from previous year	(89%)	14%	(27.6%)	14%	
Net income (loss)	\$8,442	\$71,108	\$62,557	\$79,502	\$87,986
• Percent increase (decrease) from previous year	(88%)	14%	(21%)	10%	
Earnings per share	\$ .18	\$ 1.47	\$ 1.28	\$ 1.48	\$ 1.55
• Percent increase (decrease) from previous year	(88%)	15%	(14%)	(5%)	26%

Intergraph management attributes decreases in revenue and net income during 1992 primarily to the following:

- Increasing competition in the workstation market.
- Discounted prices on Intergraph's mature product line before the announcement of new products.
- Restructuring expenses incurred when the Intergraph Electronics Design business unit reduced staff and consolidated facilities.
- Commercial sales for the Americas and the Asia-Pacific region were below expectations though earnings in Europe increased 12%.

**Acquisitions/  
Divestitures**

Acquisitions and divestitures made by Intergraph include the following:

- During 1990 and 1991, Intergraph sold its remaining investment in Cadence Design Systems, Inc. common stock, recognizing per share gains of \$.05 and \$.11 respectively. The investment in Cadence stock was acquired in 1989 in exchange for Intergraph's ownership interest in a subsidiary.

- Daisy/Cadnetix, acquired in 1990, greatly increased Intergraph's CAD product offerings in electronic design. The resulting business unit, DAZIX, represents 7% of total revenue at Intergraph.
- In April 1988, Intergraph acquired an additional 32% interest in Tangent Systems Corporation for \$3.4 million, bringing total ownership to 82%. Tangent is a supplier of IC layout software.
- In December 1988, Intergraph sold its interest in Tangent to Cadence Design Systems Inc. in exchange for 1.3 million shares of Cadence stock. The agreement is worth approximately \$14.4 million, and Intergraph's ownership interest in Cadence is approximately 6%.
- In September 1988, Intergraph acquired ANA Tech Corporation (ANA Tech). ANA Tech is a supplier of scanning and image processing products, including the Eagle line of high-resolution scanners and the Vana hardware raster-to-vector/raster converter. There were eight employees at the time of acquisition.

**Employees**

Of Intergraph's 7,300 employees, approximately 5,600 are located in the U.S. and 1,700 are at various international locations.

**Competitors**

Intergraph competitors include the following:

- In the workstation market, Intergraph considers its major competitors to be Sun Microsystems, Hewlett-Packard, Digital Equipment Corporation and IBM.
- In the CAD/CAM market, Intergraph considers its competitors to be Autodesk, Federal Computer Corporation and Cordant.

**Key Products and Services**

Intergraph reports its revenue in two categories: Systems, which includes turnkey systems and professional services revenue; and Service, which includes maintenance revenue. A three-year summary of source of revenue follows:

**INTERGRAPH CORPORATION  
THREE-YEAR SOURCE OF REVENUE SUMMARY  
(\$ millions)**

ITEM	FISCAL YEAR					
	1992		1991		1990	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Systems	\$796	67%	\$862	72%	\$769	73%
Service	\$380	33%	\$333	28%	\$275	27%
<b>TOTAL</b>	<b>\$1,176</b>	<b>100%</b>	<b>\$1,195</b>	<b>100%</b>	<b>\$1,044</b>	<b>100%</b>

### *Workstations*

Intergraph workstations and servers, based on the CLIPPER processor, provide a broad range of performance. The 2000 Series is Intergraph's low-end offering. The mid-range 6000 Series brings enhanced performance in input-output and graphics applications. The 6000 Series offers mainframe processing power.

In the Series 2000, Intergraph has equipped entry-level systems with high-quality 2D graphics performance. It offers 12.5 million-instructions-per-second (mips) processing using a RISC processor. Series 2000 offers the InterPro desktop workstation and the specialized InterAct workstation, as well as the InterServe file server.

### *MicroStation Design Software*

Intergraph provides a bridge to the personal computer environment. Intergraph offers MicroStation Mac, MicroStation PC, PC Network File System that integrate the personal computer into the Series 2000 environment.

MicroStation offers a graphical user interface, associative dimensioning for design modifications, 3-D rendering capabilities and interactive links to Oracle and dBase databases.

### *Peripherals*

ANA Tech and Optronics are division of Intergraph that offer peripherals.

Intergraph offers special-purpose peripherals, including scanners, scanner/plotters, digitizers, photoplotters, and industry-standard disk

drives, electrostatic and pen plotters, terminals, screen image cameras, line printers, and other devices.

Intergraph offers systems tailored to a broad range of applications. Historically, the company has derived the majority of its revenues from systems for land use and resource management, process and power design, energy exploration, and architectural and engineering design.

Intergraph's software offerings are used for a wide variety of applications, which include the following:

- Architectural & Engineering Design:
  - Intergraph's Architectural and Engineering Design System automates the total project design and management process. With this software, a firm can develop and model building concepts, produce all construction documents, and manage space in a finished facility.
  - The system is offered as a set of compatible modules to serve the needs of large or small architectural firms, interior design firms, engineering firms, and corporate or government facility management offices.
  - Included are capabilities for producing 3-D models of design concepts, architectural drawings, specifications, and engineering plans, including HVAC, electrical, and plumbing. Packages to optimize facility usage are offered for strategic planning, space planning, and facility management.
- Civil Engineering:
  - The Intergraph system features software for creating 2D and 3D structural models for analysis and for completion of steel and concrete drawings.
  - The Intergraph civil engineering system also provides functions for developing site plans for buildings, streets, highways, and airports. It also provides functions for the design of facilities to carry electricity, water, gas, and sewage.
- Mechanical Design and Manufacturing:
  - For the manufacturing market, Intergraph offers Mechanical Design and Manufacturing Software to automate the complete product development cycle, from design through analysis to documentation and manufacturing. Clients use the system to design mechanical parts and assemblies in three dimensions,

defining complex parts with specialized sculptured surfacing and solids modeling software.

- Engineering software evaluates product designs for functional and structural integrity. Finite element modeling and analysis software evaluate designs by simulating stresses encountered in end use. Other products analyze mechanisms, cams, linkages, and plastic parts and molds.
- Manufacturing software includes systems for numerical control programming of milling, drilling, punching, turning, and cutting machinery. Material usage and cutting cycle optimization products are also available for sheet metal and other flat stock manufacturing. A data management system organizes shared product data bases for tighter coordination and management of all phases of the product cycle.
- Electrical Design and Engineering:
  - Intergraph offers modular products in support of electrical engineering, design, and analysis activities that can be used in any order to perform specific design tasks.
  - The electrical products address the design of controls systems for aerospace engineering, substation design, facility design and management, electromechanical design, and railway signaling design.
- Electronics Design and Manufacturing:
  - Customers in the electronics industry use the Intergraph Electronics Design System to combine all phases of the circuit design-to-manufacturing process within a shared, relational data base.
  - An integrated suite of CAE/CAD/CAM workstation-based tools is offered for the production of printed circuit boards, application-specific integrated circuits (ASICs), programmable logic devices (PLDs), and hybrid microelectronic devices. Also offered are iconic user interfaces, a microcomputer-based hierarchical schematic capture package, additional analog analysis tools and libraries, and EDIF 200 netlist conversion tools.
  - Intergraph also offers third-party software for its CLIPPER workstations, including digital simulation and analysis, hardware simulation and acceleration, logic synthesis, thermal, vibration, and reliability analysis.



- Electronic Publishing
  - Intergraph's Electronic Distributed Publishing System automates the preparation and publication of the documentation required by design, engineering, and mapping projects. With this integrated system, companies can produce repair and assembly manuals, map books, product guides, proposals, catalogs, training manuals, and similar documents. The system enables the user to create and preview pages, complete with text and illustrations, and then output the results to a typesetter without ever passing through the paper stage.
  - The Distributed Publishing System includes products for word processing, composition/pagination, presentation graphics, and illustration. Scanning and image processing capabilities incorporate photographs and hard copy line art as document illustrations.
- Geographic Information Systems:
  - Intergraph is a major supplier of interactive graphics systems for land use and resource management applications.
  - Customers include military and civilian mapping agencies, local governments (for managing land records and conducting tax appraisal operations), forest products companies, and other firms managing large tracts and performing resource studies.
- Surveying and Cartography:
  - Intergraph offers a range of products serving the general mapping industry, and other specialized mapping and surveying applications.
  - Map data can be entered on the Intergraph system through direct digitizing of existing maps, from electronic survey instruments, or from a raster scanner. Software for edge matching helps in the integration of map sections into a continuous map.
- Utilities:
  - Intergraph offers interactive graphics and data base management capabilities to support the design, engineering, and mapping workflow needs of utilities.
  - Telecommunications, electric, gas, water companies, and local governments, are using Intergraph's products for distribution engineering, substation engineering, transmission facilities design

and management, power plant engineering, telecommunications, central office engineering, document and manual production, land and building planning, and land records management.

- Plant Design:

- Intergraph's Plant Design System supports all the software needed to design process, equipment, piping, instrumentation, electrical, structural, and other design aspects of a plant.
- Specialized functions provide the capability to prepare 3-D plant models, create all required drawings, perform design analysis, prepare requisitions for equipment and commodities, and generate the full range of reports required for review and construction.

- Energy Exploration and Production:

- Customers in the energy exploration and production industry use the Intergraph system for several different applications, including base mapping, lease mapping, seismic interpretation and evaluation, log analysis, and geologic mapping. The energy industries perform complex analyses to locate subsurface hydrocarbons and mineral deposits from a single interactive computer graphics environment.
- Intergraph mapping and data base management software is used for managing ownership, jurisdictional boundary information, site access, and well information.

Intergraph offers the following software for its workstations and servers:

**INTERGRAPH CORPORATION  
SOFTWARE PRODUCTS**

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<b>Architecture/Engineering/Construction</b> AEC Shell Bridge Designer II CADMIN CIVILCAD DACIS Home Builder EE Schematic Facility Design and Management Software (FDM) GWN-DTM Digital Terrain Modeling InFlow InRoads InSite Integral Building Information System Calculation* Integrated Building Information System Text* InterSect IPOGO IsoRAM IsoVU MAESTRO Maproute Master Architect MicasPlus Series ModelView Project Series STAAD-III/ISDS VI DataViews Series*	Intergraph/Mill Postprocessor Generator* Intergraph/Multi-Axis Milling Option Intergraph/NISA Interface Intergraph/Numerical Control Intergraph/Product Data Manager Intergraph/Product Data User Intergraph/Punch Option Intergraph/Sheet Metal Flat Pattern Package Intergraph/Thermal Cutting Option Intergraph/Wire Cutting Option MINT - Major Internal Structure Definition* MOLDFLOW MOLDFLOW-TP MOLDTEMP NCimStation NISA/3D-FLUID NISA-Composites NISAOPT PATCHGEN - Patch Generation PULSENET - Transient Waves in Networks RASDAS - Rational Structural Design Analysis RIMBAUD SEHAM SEPS SFOLDS - Naval Architecture Design Analysis SHELLDEF SILMA CimStation STRUC - Internal Structure Design STWKDES - Steelwork Design WAVENET - Steady Waves in Networks
<b>Electronics</b> ABEL* ASIC Engineer/Series Amplifier Library Module Analog Series Applicon-In Translator Auto Board Tester Nucleus Automatic Placement BJT Library Module Benchtop Instrument Interface Bridgeport Drill & Router Postproc. CAM Engineer CASE Electronics Interface CSPICE Cost Effectiveness Analysis Program* Design Engineer Digital Analysis Tools Diode Library Module Direct Writing Machine Software Dynapert Series EDIF Netlister ESP 7200 Auto Board Tester Postprocessor Excellon Postprocessor Series Factron Postprocessor Series Feedback FutureNet Netlister GATES*	<b>Miscellaneous</b> C-macs <sup>R</sup> Editor Configuration Management Tool (CMT) FIBRPLAN IGES PARSER/VERIFIER KES (Knowledge Engineering System) MasterPlan Q-Calc Standard UniPress Emacs vi-PLUS WORD ERA
	<b>Nucleus Software Packages</b> INGRES Database Manager* INGRES Embedded Preproc. for C* INGRES Embedded Preproc. for FORTRAN* INGRES/Applications* InformixC-ISAM* Informix Run Time License* Informix-4GL Application Dev. Language* Informix-ESQL/C Emb. SQL & Tools for C* Informix-SQL RDBMS* Intergraph/Network File Manager

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<p> GDS II In/Out Interface  GenRad Postprocessor Series  Gerber Formatter*  HILO Series*  HP 306XX Auto Board Tester Postprocessor  Hybrid Series**  IKOS Hardware Simulator Interface  Integri-Test Auto Board Tester Postprocessor  JFET Library Module  MOSFET Library Module  Maintainability Effectiveness Analysis Program*  Marconi 80X Auto Board Tester Postprocessor  NC Nucleus Series  OK Wire Wrap Postprocessor  PCB Series**  PDI 4000 Auto Board Tester Postprocessor  Parasitic Parameters Analysis**  Philips SMD MCM1 NC Inserter Postprocessor  Pole/Zero Analysis  Posalux NC Drill and Router Postprocessor  Redac-In Translator  Reliability Effectiveness Analysis Program*  Scicards-In Translator  Sieb &amp; Meyer NC Drill and Router Postproc.  Standard Logic WWM-XXX Wire Wrap Postproc.  Starter Analog Library Module  Statistical Analysis Module  Stitchweld Model 357-N Wire Wrap Postproc.  TDK NC Inserter Postprocessor  Tiger-PCB Autorouter**  Trudil Postprocessor Series  Universal Postprocessor Series  Wire Wrap Nucleus  XILINX Netlister  ZYCAD Hardware Accelerator Interface  Zehntel Model 810 Auto Board Tester Postproc. </p> <p> Electronic Publishing  DP/Manager  DP/Manager User  DP/Paint**  DP/Presenter  DP/Publisher**  Wordperfect* </p> <p> Mapping  CPS-3™  GWN-COGO  Intergraph/Scanning Software  Intergraph/Symbol Character Recog. Software  Intergraph/Vectorization Software  Map Publisher  S.C.I.P.S. (Soil Cell Info. Parceling System)  SpatialData  TIGRIS Series </p>	<p> Intergraph/User Interface Builder  ORACLE Easy*SQL Database Utility*  ORACLE Pro*C Programmatic DB Interface*  ORACLE Pro*FORTRAN Prog. DB Inter.*  ORACLE RDBMS Base Product*  ORACLE SQL*Utilities*  ORACLE SQLNet Network DB Comm. Fac.*  ORACLE SQL*Net TCP/IP DB Comm. Proto.*  ORACLE SQL*Plus Database Utility*  ORACLE SQL*ReportWriter Database Utility* </p> <p> Petroleum Software Packages  ASSISTANT<sup>®</sup>  CIRC  EOW-PAK  GASP  LogStation  Maya System  PRESIM  Stratamodel  TDAS  TerraStation  VIP-COMP  VIP-CORE  CIP-DUAL  VIP-ENCORE  Vortex </p> <p> Plotting Software Packages  Benson 96XX Device Drivers  CalComp 107X Device Drivers  Dot Matrix Device Driver  Hewlett-Packard 7475 Device Driver  Hewlett-Packard 75XX Device Driver  InterPlot  Intergraph Type 9 Raster Output Driver  Shinko CHC645 Device Driver  V80 Device Driver  V80 Workstation Plotting  Versatec 72XX Device Driver  Versatec 74XX Device Driver  Versatec 85XX Device Driver  Versatec CE32XX Device Driver  Versatec CE34XX Device Driver  Xerox 4045 Device Driver </p> <p> System Software Packages  BSC/3270*  BSC/RJE*  C Compiler*  C + + Translator*  CS/200 Boot Image*  Documenter's Workbench<sup>®</sup>  EMACS**  Figaro Run Time License*  Fortran-77 Compiler* </p>

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
Mechanical & Manufacturing AutoMod II Series Binary Cutter Location Interface B-LINES - Hull Form Definition BL2IG - B-LINES Interface to Intergraph BRITTSHELL - Shell arrangement and plate devel. BRITSHIPS CODES - Conceptual Design System COSMOS/M DISPLAY II ELECTRO - Electrical Routing System ENDURE FEAP FIDAP GENSURF HS2IG - HULLSURF Interface to Intergraph HULLDAS - Hull Design Analysis System HULLGEN - Hull Form Generation HULLSURF - Hull Surface Definition IGCAD IGRIP Intergraph/Cooling Analysis Intergraph/2.5-Axis Milling Option Intergraph/3-Axis Mill & Lathe Postproc. Gen.* Intergraph/ANSYS Interface Intergraph/Cincom Interface Program Intergraph/Engineering Modeling System Intergraph/Finite Element Modeling/Solver Intergraph/Flow Analysis Intergraph/Image Man. & Graph. Editing Sys. Intergraph/Kinematics Mechanism Modeling** Intergraph/Lathe Option Intergraph/Lathe Postprocessor Gen.* Intergraph/MSC Interface Intergraph/Mechanical Drafting System Intergraph/Mechanism Modeling Intergraph/Mill and Lathe Postproc. Generator*	MFCbase MicroStation 32* MicroStation 32 Customer Support Library* NKR BASIC Interpreter* Network File System* Pascal Compiler* Prior Graphical Kernel System (GKS)* QTC Math Advantage (C Version)* QTC Math Advantage (FORTRAN Version)* Remote File Sharing* SNA/3270* SNA/RJE* SoftPC* TCP/IP Intergraph Tektronix 4107 Terminal Emulation* Template Graphics Software Figaro* XNS/VT*  Translator Software Packages Applcon 8XX to Intergraph Translators* AutoCAD Translators* AutoTrol GS1000 to Intergraph Translator* CADAM Translators* CADD Translators* CATIA to Intergraph Translator* Intergraph Translators* POWRTRAN-PC Unigraphics II Intergraph Translator*  Utilities Software Packages Electric FIDS Designer FRAMME Designer MicroStation 32 Raster Graphics Editor Telephone FIDS Designer Water FIDS Designer

\*Indicates third-party software

\*\*Jointly owned by Intergraph and a third-party vendor

## Clients

Clients include Coca-Cola, Ford Motor Company, Colgate-Palmolive Company, Sverdrup Corporation, Moulinex, Corgan Associates Architects, Air Force Logistics Command, California Department of Conservation, Perkin-Elmer Corporation, and Metroscan.

**Alliances**

Intergraph has the following marketing agreements:

**INTERGRAPH CORPORATION  
MARKETING AGREEMENTS**

VENDOR	MARKETING AGREEMENT
Allen-Bradley Automation Intelligence AutoSimulations Inc. CAM Software Inc.  CHAM of North America Inc. Cincom Systems Inc.  Computerized Structural Analysis and Research EMRC Informix Software Inc. Mechanical Dynamics Inc. Moldflow Pty. Ltd. Oracle Corp. Precision Nesting Systems Relational Technology Inc. Research Engineers Inc. Silma Inc. Structural Research and Analysis Corp. Visitech Graphic Resources 3D Systems	CMM, cell control Postprocessors Graphical factory simulation Expert systems, decision-tree management systems Computational fluid dynamics RDBMS, application development system, business/manufacturing application software FEA FEA RDBMS Kinematics/dynamic analysis Plastics processing analysis RDBMS Sheet metal nesting RDBMS FEA Robotic programming FEA Customized lease mapping solutions Stereolithography for physical prototyping

**Industry Markets**

Intergraph markets its products to various industries, including aerospace, automotive, utilities, transportation, petroleum, construction, and the federal government.

The Federal Systems Division, which contributed an estimated 16% to 1992 revenue, provides Intergraph systems and associated support services to federal agencies. Contract examples include:

- An interactive computer graphics system to aid in the design of NASA's Space Station for Boeing Aerospace. This first phase is worth \$1.8 million.
- An automatic graphics digitizing system for the Department of the Interior for \$4.6 million.

**Geographic  
Markets**

A three-year summary of Intergraph's geographic source of revenue follows:

**INTERGRAPH CORPORATION  
THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY  
(\$ millions)**

ITEM	FISCAL YEAR					
	1992		1991		1990	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
U.S.	\$576	49%	\$652	54%	\$554	53%
Europe	\$447	38%	\$400	34%	\$345	33%
Other International	\$153	13%	\$143	12%	\$146	14%
<b>TOTAL</b>	<b>\$1,176</b>	<b>100%</b>	<b>\$1,195</b>	<b>100%</b>	<b>\$1,045</b>	<b>100%</b>





## COMPANY PROFILE

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### INTERGRAPH CORPORATION

One Madison Industrial Park  
Huntsville, AL 35807-4201  
(205) 772-2000

James W. Meadlock, Chairman and CEO  
Elliott James, President  
Public Corporation, OTC  
Total Employees: 7,300 (12/88)  
Total Revenue, Fiscal Year End  
12/31/88: \$800,160,000

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### The Company

Intergraph Corporation, incorporated in 1969 as M&S Computing, Inc., designs, manufactures, markets, and supports interactive computer graphics systems, including hardware and application software. Intergraph also markets its CLIPPER family of workstations and servers.

- In December 1988, Intergraph formed the CLIPPER Products Division to market its workstations and servers unbundled from the company's application software, and CLIPPER board-level products.
- The CLIPPER processor features Reduced Instruction Set Computer (RISC) architecture, with performance levels ranging from 4 to 20 MIPS.
- This division employs approximately 140 people, including hardware and software engineers. An additional 35 to 40 people in Intergraph's sales staff are dedicated to the division.

Total 1988 revenue reached \$800.2 million, a 25% increase over 1987 revenue of \$641.1 million. Net income rose 26%, from \$69.9 million in 1987 to \$88 million in 1988. A five-year financial summary follows:

**INTERGRAPH CORPORATION  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	1988	1987	1986	1985	1984
Revenue	\$800,160	\$641,083	\$605,737	\$526,405	\$403,762
• Percent increase (decrease) from previous year	25%	6%	15%	30%	60%
Income (loss) before taxes	\$138,799	\$115,783	\$123,472	\$118,537	\$109,550
• Percent increase (decrease) from previous year	20%	(6%)	4%	8%	90%
Net income (loss)	\$87,986	\$69,876	\$70,362	\$67,779	\$62,936
• Percent increase (decrease) from previous year	26%	(1%)	4%	8%	115%
Earnings (loss) per share	\$1.55	\$1.23	\$1.26	\$1.25	\$1.22
• Percent increase (decrease) from previous year	26%	(2%)	1%	3%	110%

Intergraph management attributes increases in net income during 1988 primarily to the following:

- A 25% increase in revenues
- A 1.7% increase in gross margin
- A 3.0% decline in the effective income tax rate

Earnings for 1988 were affected by several factors, including:

- Increased research, development, and marketing expenses associated with the introduction of new products
  - Product development expenditures were \$89.2 million (11% of revenue) in 1988, compared to \$67.5 million (11% of revenue) in 1987, and \$57.7 million (10% of revenue) in 1986.
  - Marketing expenditures were approximately \$118.4 million (15% of revenue) in 1988, compared to \$90 million (14% of

revenue) in 1987, and \$76.5 million (13% of revenue) in 1986.

- Major investments in new international operations in Japan, Korea, Taiwan, New Zealand, and Switzerland.

Revenue for the nine months ending September 30, 1989 was \$616.4 million, a 5% increase over \$585.3 million for the same period a year ago. Net income declined 11%, from \$63 million to \$56.3 million. Declines in earnings were attributed to higher marketing expenses and lower gross margins.

- Sales and marketing expenses increased 38% compared to the same period in 1988, due to an increased headcount and the following prevailing industry trends: lower sales dollars per seat; growing interest in UNIX-based solutions (Intergraph VAX unit sales were down 50% from the same period in 1988); and buyer hesitation and confusion due to rapidly changing product cycles.
- The gross margin on systems declined 2.1 percentage points to 53.1%, due to a lower-than-anticipated planned shipment volume, the strength of the U.S. dollar in Europe, and a competitive marketplace.

Recent acquisitions and divestitures made by Intergraph include the following:

- In October 1989, Intergraph announced it had reached a definitive agreement for the acquisition of Quintus Computer Systems, Inc. of Mountain View (CA). Terms of the acquisition were not disclosed.
  - Quintus, incorporated in 1984, supplies Prolog-based software development tools. The company's major offering is the Prolog Integrated Environment, a complementary set of software tools for developing both knowledge-based and traditional applications.
  - Quintus had revenue of approximately \$3.3 million for calendar 1988, and currently has 37 employees.
  - Quintus will operate as a wholly owned subsidiary of Intergraph.
- In December 1988, Intergraph sold its 82% interest in Tangent Systems Corporation to Cadence Design Systems Inc. in exchange for 1.3 million shares of Cadence stock. Tangent is a

supplier of IC layout software. The agreement is worth approximately \$14.4 million, and Intergraph's ownership interest in Cadence is approximately 6%.

- In September 1988, Intergraph acquired ANA Tech Corporation. ANA Tech is a supplier of scanning and image processing products, including the Eagle line of high-resolution scanners and the Vana hardware raster-to-vector/raster converter. There were eight employees at the time of acquisition.
- In October 1987, Intergraph purchased certain assets and all technology and intellectual property rights of the Advanced Processor Division (APD) of Fairchild Semiconductor Corporation for approximately \$6.3 million. APD supplies the CLIPPER microprocessor chipset used in Intergraph's line of graphics workstations.
- In September 1987, Intergraph sold all the outstanding common stock of its subsidiary, Intergraph South Africa (Pty.), Ltd., for \$3.4 million, realizing a gain of approximately \$1.9 million on the sale.
- In June 1987, Intergraph acquired a 50% interest in Bentley Systems, Inc., a computer graphics software development company, through the issuance of 148,148 shares of its common stock.

As of December 31, 1988, Intergraph had 7,300 employees. The company currently has over 7,900 employees worldwide.

Intergraph competitors include the following:

- In the workstation market, Intergraph considers its major competitors to be Sun Microsystems, Apollo/Hewlett-Packard, and DEC.
- In the CAD/CAM/CAE market, Intergraph considers its competitors to be IBM, DEC, and Prime/Computervision.

### **Key Products and Services**

Intergraph reports its revenue in two categories: Systems, which includes turnkey systems and professional services revenue; and Service, which includes maintenance revenue. A three-year summary of source of revenue follows:

**INTERGRAPH CORPORATION  
THREE-YEAR SOURCE OF REVENUE SUMMARY  
(\$ millions)**

	FISCAL YEAR					
	1988		1987		1986	
ITEM	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Systems	\$590.7	74%	\$464.0	72%	\$468.1	77%
Service	\$209.5	26%	\$177.1	28%	\$137.6	23%
<b>TOTAL</b>	<b>\$800.2</b>	<b>100%</b>	<b>\$641.1</b>	<b>100%</b>	<b>\$605.7</b>	<b>100%</b>

Intergraph workstations and servers, based on the CLIPPER processor, provide a broad range of performance. The 100 and 200 Series are Intergraph's low-end offering. The midrange 300 Series brings enhanced performance both in input-output and graphics applications. The 3000 Series offers mainframe processing power.

Intergraph manufactures, markets, and supports the CLIPPER-based workstations and servers, as follows:

- The InterPro<sup>R</sup> series is a single-screen workstation with 15-inch, 19-inch, or 27-inch color displays. The 15-inch and 19-inch displays offer a pixel addressability of 1184 by 884. The 27-inch offers 1664 by 1248 pixels. All InterPro models come with a keyboard and mouse.
  - The 27-inch InterPros can be configured to include a 25.5- by 24.5-inch worksurface with a menu tablet and cursor.
- The InterAct<sup>R</sup> series is a dual-screen, high-performance workstation with multimode processing capabilities. The 19-inch high-resolution (1184 by 884 pixels) color screen permits simultaneous viewing of different parts of a design or model.
  - The work surface can be used for digitizing drawings up to D-size.
- The InterView<sup>R</sup> workstation is a dual-screen workstation with 19-inch high-resolution color screens. The workstation provides for large-scale digitizing, and can be operated with a variety of digitizing tables, including backlit tables for cartographic

applications.

- The InterServe™ general-purpose servers, introduced in 1987, provide mainframe performance in a multiuser environment. Functions such as plotting and communications between the workstation and the mainframe can be done on the server to improve graphics performance.

Intergraph currently has over 36,000 workstation installations worldwide.

Intergraph's MicroStation product line takes the company's IGDS graphics software and makes it available for microcomputers.

- MicroStation is available for various operating environments, including MS-DOS (MicroStation PC), UNIX (MicroStation 32), and Macintosh II (MicroStation Mac).
- MicroStation is priced at \$3,300 for any of the three platforms.

Intergraph markets and supports 32-bit DEC VAX-based central processors, including the MicroVAX II-based Intergraph 200, 250, and 252; the CVAX-based Intergraph 350 and 380; and the VAXBI-based 6300 Series.

- The InterMap Analytic, introduced in 1985, is a combination workstation/analytical stereoplottter designed to support photometric applications.

Intergraph has announced plans to bundle the Looking Glass software from Visix Software Inc. as the user interface to its workstations.

Intergraph offers special-purpose peripherals, including scanners, scanner/plotters, photoplotters, and industry-standard disk drives, electrostatic and pen plotters, color and monochrome hard copy devices, tape drives, alphanumeric terminals, screen image cameras, line printers, and other devices.

Intergraph offers systems tailored to a broad range of applications. Historically, the company has derived the majority of its revenues from systems for land use and resource management, process and power design, energy exploration, and architectural and engineering design.

Intergraph's software offerings are used for a wide variety of applications, which include the following:

*Architectural & Engineering Design:*

- Intergraph's Architectural and Engineering Design System automates the total project design and management process. With this software, a firm can develop and model building concepts, produce all construction documents, and manage space in a finished facility.
- The system is offered as a set of compatible modules to serve the needs of large or small architectural firms, interior design firms, engineering firms, and corporate or government facility management offices.
- Included are capabilities for producing 3-D models of design concepts, architectural drawings, specifications, and engineering plans, including HVAC, electrical, and plumbing. Packages to optimize facility usage are offered for strategic planning, space planning, and facility management.

*Civil Engineering:*

- The Intergraph system features software for creating 2-D and 3-D structural models for analysis and completion of steel and concrete drawings.
- The Intergraph civil engineering system also provides functions for developing site plans for buildings, streets, highways, and airports, and for design of facilities to carry electricity, water, gas, and sewage.

*Mechanical Design and Manufacturing:*

- For the manufacturing market, Intergraph offers Mechanical Design and Manufacturing Software to automate the complete product development cycle, from design through analysis to documentation and manufacturing. Clients use the system to design mechanical parts and assemblies in three dimensions, defining complex parts with specialized sculptured surfacing and solids modeling software.
- Engineering software evaluates product designs for functional and structural integrity. Finite element modeling and analysis software evaluates designs by simulating stresses encountered in end use. Other products analyze mechanisms, cams, linkages, and plastic parts and molds.
- Manufacturing software includes systems for numerical control programming of milling, drilling, punching, turning, and cutting



machinery. Material use and cutting cycle optimization products are also available for sheet metal and other flat stock manufacturing. A data management system organizes shared product data bases for tighter coordination and management of all phases of the product cycle.

#### *Electrical Design and Engineering:*

- Intergraph offers modular products in support of electrical engineering, design, and analysis activities that can be used in any order to perform specific design tasks.
- The electrical products address the design of control systems for aerospace engineering, substation design, facility design and management, electromechanical design, and railway signaling design.

#### *Electronics Design and Manufacturing:*

- Customers in the electronics industry use the Intergraph Electronics Design System to combine all phases of the circuit design-to-manufacturing process within a shared, relational data base.
- An integrated suite of CAE/CAD/CAM workstation-based tools is offered for the production of printed circuit boards, application-specific integrated circuits (ASICs), programmable logic devices (PLDs), and hybrid microelectronic devices. Also offered are iconic user interfaces, a microcomputer-based hierarchical schematic capture package, additional analog analysis tools and libraries, and EDIF 200 netlist conversion tools.
- Intergraph also offers third-party software for its CLIPPER workstations, including digital simulation and analysis; hardware simulation and acceleration; logic synthesis; thermal, vibration, and reliability analysis.

#### *Electronic Publishing:*

- Intergraph's Electronic Distributed Publishing System automates the preparation and publication of the documentation required by design, engineering, and mapping projects. With this integrated system, companies can produce repair and assembly manuals, map books, product guides, proposals, catalogs, training manuals, and similar documents. The system enables the user to create and preview pages, complete with text and illustrations, and then output the results



to a typesetter without ever passing through the paper stage.

- The Distributed Publishing System includes products for word processing, composition/pagination, presentation graphics, and illustration. Scanning and image processing capabilities incorporate photographs and hard copy line art as document illustrations.

#### *Geographic Information Systems:*

- Intergraph is a major supplier of interactive graphics systems for land use and resource management applications.
- Customers include military and civilian mapping agencies, local governments (for managing land records and conducting tax appraisal operations), forest products companies, and other firms managing large tracts and performing resource studies.

#### *Surveying and Cartography:*

- Intergraph offers a range of products serving both the general mapping industry and other specialized mapping and surveying applications.
- Map data can be entered on the Intergraph system through direct digitizing of existing maps, from electronic survey instruments, or from a raster scanner. Software for edge-matching aids in the integration of map sections into a continuous map.

#### *Utilities:*

- Intergraph offers interactive graphics and data base management capabilities to support the design, engineering, and mapping workflow needs of utilities.
- Telecommunications, electric, gas, and water companies, as well as local governments, are using Intergraph's products for distribution engineering, substation engineering, transmission facilities design and management, power plant engineering, telecommunications, central office engineering, document and manual production, land and building planning, and land records management.

*Plant Design:*

- Intergraph's Plant Design System supports all the software needed to design process, equipment, piping, instrumentation, electrical, structural, and other design aspects of a plant.
- Specialized functions provide the capability to prepare 3-D plant models, create all required drawings, perform design analysis, prepare requisitions for equipment and commodities, and generate the full range of reports required for review and construction.

*Energy Exploration and Production:*

- Customers in the energy exploration and production industry use the Intergraph system for several different applications, including base mapping, lease mapping, seismic interpretation and evaluation, log analysis, and geologic mapping. The energy industries can perform complex analyses to locate subsurface hydrocarbons and mineral deposits from a single interactive computer graphics environment.
- Intergraph mapping and data base management software is used for managing ownership, jurisdictional boundary information, site access, and well information.

Intergraph offers the following software for its workstations and servers:

**INTERGRAPH CORPORATION  
SOFTWARE PRODUCTS**

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<b>Architecture/Engineering/Construction</b> AEC Shell Bridge Designer II CADMIN CIVILCAD DACIS Home Builder EE Schematic Facility Design and Management Software (FDM) GWN-DTM Digital Terrain Modeling InFlow InRoads InSite Integral Building Information System Calculation* Integrated Building Information System Text* InterSect IPOGO IsoRAM IsoVU MAESTRO Maproute Master Architect MicasPlus Series ModelView Project Series STAAD-III/ISDS VI DataViews Series*	Intergraph/Mill Postprocessor Generator* Intergraph/Multi-Axis Milling Option Intergraph/NISA Interface Intergraph/Numerical Control Intergraph/Product Data Manager Intergraph/Product Data User Intergraph/Punch Option Intergraph/Sheet Metal Flat Pattern Package Intergraph/Thermal Cutting Option Intergraph/Wire Cutting Option MINT - Major Internal Structure Definition* MOLDFLOW MOLDFLOW-TP MOLDTEMP NCImStation NISA/3D-FLUID NISA-Composites NISAOPT PATCHGEN - Patch Generation PULSENET - Transient Waves in Networks RASDAS - Rational Structural Design Analysis RIMBAUD SEHAM SEPS SFOLDS - Naval Architecture Design Analysis SHELLDEF SILMA CimStation STRUC - Internal Structure Design STWKDES - Steelwork Design WAVENET - Steady Waves in Networks
<b>Electronics</b> ABEL* ASIC Engineer/Series Amplifier Library Module Analog Series Applicon-In Translator Auto Board Tester Nucleus Automatic Placement BJT Library Module Benchtop Instrument Interface Bridgeport Drill & Router Postproc. CAM Engineer CASE Electronics Interface CSPICE Cost Effectiveness Analysis Program* Design Engineer Digital Analysis Tools Diode Library Module Direct Writing Machine Software Dynapert Series EDIF Netlister ESP 7200 Auto Board Tester Postprocessor Excellon Postprocessor Series Factron Postprocessor Series Feedback FutureNet Netlister GATES*	<b>Miscellaneous</b> C-macs <sup>®</sup> Editor Configuration Management Tool (CMT) FIBRPLAN IGES PARSER/VERIFYER KES (Knowledge Engineering System) MasterPlan Q-Calc Standard UniPress Emacs vi-PLUS WORD ERA  <b>Nucleus Software Packages</b> INGRES Database Manager* INGRES Embedded Preproc. for C* INGRES Embedded Preproc. for FORTRAN* INGRES/Applications* InformixC-ISAM* Informix Run Time License* Informix-4GL Application Dev. Language* Informix-ESQL/C Emb. SQL & Tools for C* Informix-SQL RDBMS* Intergraph/Network File Manager

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
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APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
Mechanical & Manufacturing AutoMod II Series Binary Cutter Location Interface B-LINES - Hull Form Definition BL2IG - B-LINES Interface to Intergraph BRITSHHELL - Shell arrangement and plate devel. BRITSHIPS CODES - Conceptual Design System COSMOS/M DISPLAY II ELECTRO - Electrical Routing System ENDURE FEAP FIDAP GENSURF HS2IG - HULLSURF Interface to Intergraph HULLDAS - Hull Design Analysis System HULLGEN - Hull Form Generation HULLSURF - Hull Surface Definition IGCAD IGRIP Intergraph/Cooling Analysis Intergraph/2.5-Axis Milling Option Intergraph/3-Axis Mill & Lathe Postproc. Gen.* Intergraph/ANSYS Interface Intergraph/Cincom Interface Program Intergraph/Engineering Modeling System Intergraph/Finite Element Modeling/Solver Intergraph/Flow Analysis Intergraph/Image Man. & Graph. Editing Sys. Intergraph/Kinematics Mechanism Modeling** Intergraph/Lathe Option Intergraph/Lathe Postprocessor Gen.* Intergraph/MSC Interface Intergraph/Mechanical Drafting System Intergraph/Mechanism Modeling Intergraph/Mill and Lathe Postproc. Generator*	MFCbase MicroStation 32* MicroStation 32 Customer Support Library* NKR BASIC Interpreter* Network File System* Pascal Compiler* Prior Graphical Kernel System (GKS)* QTC Math Advantage (C Version)* QTC Math Advantage (FORTRAN Version)* Remote File Sharing* SNA/3270* SNA/RJE* SoftPC* TCP/IP Intergraph Tektronix 4107 Terminal Emulation* Template Graphics Software Figaro* XNS/VTP*  Translator Software Packages Applicon 8XX to Intergraph Translators* AutoCAD Translators* AutoTrol GS1000 to Intergraph Translator* CADAM Translators* CADD Translators* CATIA to Intergraph Translator* Intergraph Translators* POWRTRAN-PC Unigraphics II Intergraph Translator*  Utilities Software Packages Electric FIDS Designer FRAMME Designer MicroStation 32 Raster Graphics Editor Telephone FIDS Designer Water FIDS Designer

\*Indicates third-party software

\*\*Jointly owned by Intergraph and a third-party vendor

Intergraph has the following marketing agreements:

**INTERGRAPH CORPORATION  
MARKETING AGREEMENTS**

VENDOR	MARKETING AGREEMENT
Allen-Bradley Automation Intelligence AutoSimulations Inc. CAM Software Inc.  CHAM of North America Inc. Clincom Systems Inc.  Computerized Structural Analysis and Research EMRC Informix Software Inc. Mechanical Dynamics Inc. Moldflow Pty. Ltd. Oracle Corp. Precision Nesting Systems Relational Technology Inc. Research Engineers Inc. Silma Inc. Structural Research and Analysis Corp. Visitech Graphic Resources 3D Systems	CMM, cell control Postprocessors Graphical factory simulation Expert systems, decision management systems Computational fluid dynamics RDBMS, application development system, business/manufacturing application software FEA FEA RDBMS Kinematics/dynamic analysis Plastics processing analysis RDBMS Sheet metal nesting RDBMS FEA Robotic programming FEA Customized lease mapping solutions Stereolithography for physical prototyping

The Federal Systems Division, which contributed an estimated 14% to 1988 revenue, provides Intergraph systems and associated support services to federal agencies. Contract examples include:

- A computer-integrated engineering system for the Space Station Freedom program under contract to the Boeing Company.
- An automatic graphics digitizing system for the Department of the Interior for \$4.6 million.
- An automated design system to optimize Quantum Medical Systems' concept-to-manufacturing workflow. Quantum designs, markets, and supports a blood-flow imaging system used for diagnosing vascular diseases.
- An interactive graphics laboratory design and analysis system for Bayer AG, Leverkusen, West Germany.

### Industry Markets

Intergraph markets its products to various industries, including aerospace, automotive, utilities, transportation, petroleum, construction, and the federal government.

Clients include Coca-Cola, Ford Motor Company, Colgate-Palmolive Company, Sverdrup Corporation, Moulinex, Corgan Associates Architects, Air Force Logistics Command, California Department of Conservation, Perkin-Elmer Corporation, and Metroscan.

Revenue from the U.S. federal government was approximately \$111 million (14% of revenue) in 1988, \$81.9 million (13% of revenue) in 1987, and \$78.8 million (13% of revenue) in 1986.

### Geographic Markets

A three-year summary of Intergraph's geographic source of revenue follows:

#### INTERGRAPH CORPORATION THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY (\$ millions)

ITEM	FISCAL YEAR					
	1988		1987		1986	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
U.S.	\$492.9	57%	\$404.6	58%	\$420.8	66%
Europe	\$230.0	29%	\$185.8	29%	\$129.0	22%
Other (a)	\$77.3	14%	\$50.7	13%	\$55.9	12%
<b>TOTAL</b>	<b>\$800.2</b>	<b>100%</b>	<b>\$641.1</b>	<b>100%</b>	<b>\$605.7</b>	<b>100%</b>

(a) Includes revenue from general international sources.

U.S. offices are located by region as follows:

- West Coast: Irvine, Pasadena, San Jose, and Solana Beach (CA); Portland (OR); Seattle (WA); and Phoenix (AZ).
- Western: Englewood (CO); Overland Park (KS); Metairie (LA); Tulsa (OK); and Austin, Dallas (2), Houston, and San Antonio (TX).
- Midwest: Bettendorf (IA); Indianapolis and Crown Point (IN); Birmingham and Lansing (MI); Minnetonka (MN); Ballwin (MO); Columbus, Cleveland, and Dayton (OH); and Milwaukee (WI).



- Southeast: Birmingham (AL); Winter Park and Tampa (FL); Atlanta (GA); Lexington (KY); Raleigh (NC); and Memphis (TN).
- Northeast: Bridgeport (CT); McLean (VA); Westborough (MA); Lyndhurst (NJ); Clinton and Rochester (NY); and King of Prussia and Pittsburgh (PA).

Intergraph has wholly owned foreign subsidiaries in Belgium, Denmark, Finland, France, Italy, The Netherlands, Norway, Spain, Sweden, Switzerland, the U.K., West Germany, Brazil, Singapore, Canada, Japan, and Korea.

- The company has majority owned or effectively controlled subsidiaries in Australia, Mexico, Venezuela, Taiwan, and Bahrain.
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#### **Computer Hardware and Software**

Intergraph has the following computers installed at its headquarters:

- 4 DEC VAX 11/730s, VMS
- 12 DEC VAX 11/750s, VMS
- 17 DEC VAX 11/780s, VMS
- 12 DEC VAX 11/785s, VMS
- 7 DEC MicroVAX IIs, Micro VMS



## COMPANY PROFILE

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### **INTERGRAPH CORPORATION**

One Madison Industrial Park  
Huntsville, AL 35807-4201  
(205) 772-2000

James W. Meadlock, Chairman and  
President  
Public Corporation, OTC  
Total Employees: 7,300  
Total Revenue, Fiscal Year End  
12/31/88: \$800,160,000

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### **The Company**

Intergraph Corporation, incorporated in 1969 as M&S Computing, Inc., designs, manufactures, markets, and supports interactive computer graphics systems, including hardware and application software. Intergraph also markets its CLIPPER family of workstations and servers.

- In December 1988, Intergraph formed the CLIPPER Products Division to market its workstations and servers unbundled from the company's application software, and CLIPPER board-level products.
- The CLIPPER processor features Reduced Instruction Set Computer (RISC) architecture, with performance levels ranging from 4 to 20 MIPS.
- This division employs approximately 140 people, including hardware and software engineers. An additional 35 to 40 people in Intergraph's sales staff are dedicated to the division.

Total 1988 revenue reached \$800.2 million, a 25% increase over 1987 revenue of \$641.1 million. Net income rose 26%, from \$69.9 million in 1987 to \$88 million in 1988. A five-year financial summary follows:

**INTERGRAPH CORPORATION  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	1988	1987	1986	1985	1984
Revenue	\$800,160	\$641,083	\$605,737	\$526,405	\$403,762
• Percent Increase (decrease) from previous year	25%	6%	15%	30%	60%
Income (loss) before taxes	\$138,799	\$115,783	\$123,472	\$118,537	\$109,550
• Percent Increase (decrease) from previous year	20%	(6%)	4%	8%	90%
Net income (loss)	\$87,986	\$69,876	\$70,362	\$67,779	\$62,936
• Percent Increase (decrease) from previous year	26%	(1%)	4%	8%	115%
Earnings (loss) per share	\$1.55	\$1.23	\$1.26	\$1.25	\$1.22
• Percent Increase (decrease) from previous year	26%	(2%)	1%	3%	110%

Intergraph management attributes increases in net income during 1988 primarily to the following:

- A 25% increase in revenues
- A 1.7% increase in gross margin
- A 3.0% decline in the effective income tax rate

Earnings for 1988 were affected by several factors, including:

- Increased research, development, and marketing expenses associated with the introduction of new products
  - Product development expenditures were \$89.2 million (11% of revenue) in 1988, compared to \$67.5 million (11% of revenue) in 1987, and \$57.7 million (10% of revenue) in 1986.
  - Marketing expenditures were approximately \$118.4 million (15% of revenue) in 1988, compared to \$90 million (14% of

revenue) in 1987, and \$76.5 million (13% of revenue) in 1986.

- Major investments in new international operations in Japan, Korea, Taiwan, New Zealand, and Switzerland

In May 1985, Intergraph completed a public offering of 3.3 million shares of its common stock, adding net proceeds of approximately \$88 million to its working capital.

Recent acquisitions and divestitures made by Intergraph include the following:

- In April 1988, Intergraph acquired an additional 32% interest in Tangent Systems Corporation for \$3.4 million, bringing total ownership to 82%. Tangent is a supplier of IC layout software.
- In December 1988, Intergraph sold its interest in Tangent to Cadence Design Systems Inc. in exchange for 1.3 million shares of Cadence stock. The agreement is worth approximately \$14.4 million, and Intergraph's ownership interest in Cadence is approximately 6%.
- In September 1988, Intergraph acquired ANA Tech Corporation. ANA Tech is a supplier of scanning and image processing products, including the Eagle line of high-resolution scanners and the Vana hardware raster-to-vector/raster converter. There were eight employees at the time of acquisition.
- In June 1987, Intergraph acquired a 50% interest in Bentley Systems, Inc., a computer graphics software development company, through the issuance of 148,148 shares of its common stock.
- In October, 1987, Intergraph purchased certain assets and all technology and intellectual property rights of the Advanced Processor Division (APD) of Fairchild Semiconductor Corporation for approximately \$6.3 million.
- APD supplies the CLIPPER microprocessor chipset used in Intergraph's line of graphics workstations.
- In September 1987, Intergraph sold all the outstanding common stock of its subsidiary, Intergraph South Africa (Pty.), Ltd., for \$3.4 million, realizing a gain of approximately \$1.9 million on the sale.

Of Intergraph's 7,300 employees, approximately 5,600 are located in the U.S. and 1,700 are at various international locations.

Intergraph competitors include the following:

- In the workstation market, Intergraph considers its major competitors to be Sun Microsystems, Apollo/Hewlett-Packard, and DEC.
- In the CAD/CAM/CAE market, Intergraph considers its competitors to be IBM, DEC, and Prime/Computervision.

### Key Products and Services

Intergraph reports its revenue in two categories: Systems, which includes turnkey systems and professional services revenue; and Service, which includes maintenance revenue. A three-year summary of source of revenue follows:

**INTERGRAPH CORPORATION  
THREE-YEAR SOURCE OF REVENUE SUMMARY  
(\$ millions)**

ITEM	FISCAL YEAR					
	1988		1987		1986	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Systems	\$590.7	74%	\$464.0	72%	\$468.1	77%
Service	\$209.5	26%	\$177.1	28%	\$137.6	23%
<b>TOTAL</b>	<b>\$800.2</b>	<b>100%</b>	<b>\$641.1</b>	<b>100%</b>	<b>\$605.7</b>	<b>100%</b>

Intergraph workstations and servers, based on the CLIPPER processor, provide a broad range of performance. The 100 and 200 Series are Intergraph's low-end offering. The mid-range 300 Series brings enhanced performance both in input-output and graphics applications. The 3000 Series offers mainframe processing power.

Intergraph manufactures, markets, and supports the CLIPPER-based workstations and servers, as follows:

- The InterPro<sup>R</sup> series is a single-screen workstation with 15-inch, 19-inch, or 27-inch color displays. The 15-inch and 19-inch displays offer a pixel addressability of 1184 by 884. The 27-inch

offers 1664 by 1248 pixels. All InterPro models come with a keyboard and mouse.

- The 27-inch InterPros can be configured to include a 25.5- by 24.5-inch worksurface with a menu tablet and cursor.
- The InterAct<sup>®</sup> series is a dual-screen, high-performance workstation with multimode processing capabilities. The 19-inch high-resolution (1184 by 884 pixels) color screen permits simultaneous viewing of different parts of a design or model.
  - The work surface can be used for digitizing drawings up to D-size.
- The InterView<sup>®</sup> workstation is a dual-screen workstation with 19-inch high-resolution color screens. The workstation provides for large-scale digitizing, and can be operated with a variety of digitizing tables, including backlit tables for cartographic applications.
- The InterServe<sup>™</sup> general-purpose servers, introduced in 1987, provide mainframe performance in a multiuser environment. Functions such as plotting and communications between the workstation and the mainframe can be done on the server to improve graphics performance.

Intergraph markets and supports 32-bit DEC VAX-based central processors, including the MicroVAX II-based Intergraph 200, 250, and 252; the CVAX-based Intergraph 350 and 380; and the VAXBI-based 6300 Series.

- The InterMap Analytic, introduced in 1985, is a combination workstation/analytical stereoplottter designed to support photometric applications.

Intergraph offers special-purpose peripherals, including scanners, scanner/plotters, photoplotters, and industry-standard disk drives, electrostatic and pen plotters, color and monochrome hard copy devices, tape drives, alphanumeric terminals, screen image cameras, line printers, and other devices.

Intergraph offers systems tailored to a broad range of applications. Historically, the company has derived the majority of its revenues from systems for land use and resource management, process and power design, energy exploration, and architectural and engineering design.

Intergraph's software offerings are used for a wide variety of applications, which include the following:

- Architectural & Engineering Design
  - Intergraph's Architectural and Engineering Design System automates the total project design and management process. With this software, a firm can develop and model building concepts, produce all construction documents, and manage space in a finished facility.
  - The system is offered as a set of compatible modules to serve the needs of large or small architectural firms, interior design firms, engineering firms, and corporate or government facility management offices.
  - Included are capabilities for producing 3-D models of design concepts, architectural drawings, specifications, and engineering plans, including HVAC, electrical, and plumbing. Packages to optimize facility usage are offered for strategic planning, space planning, and facility management.
- Civil Engineering
  - The Intergraph system features software for creating 2D and 3D structural models for analysis and for completion of steel and concrete drawings.
  - The Intergraph civil engineering system also provides functions for developing site plans for buildings, streets, highways, and airports, and for design of facilities to carry electricity, water, gas, and sewage.
- Mechanical Design and Manufacturing
  - For the manufacturing market, Intergraph offers Mechanical Design and Manufacturing Software to automate the complete product development cycle, from design through analysis to documentation and manufacturing. Clients use the system to design mechanical parts and assemblies in three dimensions, defining complex parts with specialized sculptured surfacing and solids modeling software.
  - Engineering software evaluates product designs for functional and structural integrity. Finite element modeling and analysis software evaluates designs by simulating stresses encountered in end use. Other products analyze mechanisms, cams, linkages, and plastic parts and molds.

- Manufacturing software includes systems for numerical control programming of milling, drilling, punching, turning, and cutting machinery. Material usage and cutting cycle optimization products are also available for sheet metal and other flat stock manufacturing. A data management system organizes shared product databases for tighter coordination and management of all phases of the product cycle.
- Electrical Design and Engineering
  - Intergraph offers modular products in support of electrical engineering, design, and analysis activities that can be used in any order to perform specific design tasks.
  - The electrical products address the design of controls systems for aerospace engineering, substation design, facility design and management, electromechanical design, and railway signaling design.
- Electronics Design and Manufacturing
  - Customers in the electronics industry use the Intergraph Electronics Design System to combine all phases of the circuit design-to-manufacturing process within a shared, relational data base.
  - An integrated suite of CAE/CAD/CAM workstation-based tools is offered for the production of printed circuit boards, application-specific integrated circuits (ASICs), programmable logic devices (PLDs), and hybrid microelectronic devices. Also offered are iconic user interfaces, a microcomputer-based hierarchical schematic capture package, additional analog analysis tools and libraries, and EDIF 200 netlist conversion tools.
  - Intergraph also offers third-party software for its CLIPPER workstations, including digital simulation and analysis; hardware simulation and acceleration; logic synthesis; thermal, vibration, and reliability analysis.
- Electronic Publishing
  - Intergraph's Electronic Distributed Publishing System automates the preparation and publication of the documentation required by design, engineering, and mapping projects. With this integrated system, companies can produce repair and assembly manuals, map books, product guides, proposals, catalogs, training manuals, and



similar documents. The system enables the user to create and preview pages, complete with text and illustrations, and then output the results to a typesetter without ever passing through the paper stage.

- The Distributed Publishing System includes products for word processing, composition/pagination, presentation graphics, and illustration. Scanning and image processing capabilities incorporate photographs and hard copy line art as document illustrations.
- Geographic Information Systems
  - Intergraph is a major supplier of interactive graphics systems for land use and resource management applications.
  - Customers include military and civilian mapping agencies, local governments (for managing land records and conducting tax appraisal operations), forest products companies, and other firms managing large tracts and performing resource studies.
- Surveying and Cartography
  - Intergraph offers a range of products serving both the general mapping industry and other specialized mapping and surveying applications.
  - Map data can be entered on the Intergraph system through direct digitizing of existing maps, from electronic survey instruments, or from a raster scanner. Software for edge matching aids in the integration of map sections into a continuous map.
- Utilities
  - Intergraph offers interactive graphics and database management capabilities to support the design, engineering, and mapping workflow needs of utilities.
  - Telecommunications, electric, gas, and water companies, as well as local governments, are using Intergraph's products for distribution engineering, substation engineering, transmission facilities design and management, power plant engineering, telecommunications, central office engineering, document and manual production, land and building planning, and land records management.



- Plant Design
  - Intergraph's Plant Design System supports all the software needed to design process, equipment, piping, instrumentation, electrical, structural, and other design aspects of a plant.
  - Specialized functions provide the capability to prepare 3-D plant models, create all required drawings, perform design analysis, prepare requisitions for equipment and commodities, and generate the full range of reports required for review and construction.
- Energy Exploration and Production
  - Customers in the energy exploration and production industry use the Intergraph system for several different applications, including base mapping, lease mapping, seismic interpretation and evaluation, log analysis, and geologic mapping. The energy industries can perform complex analyses to locate subsurface hydrocarbons and mineral deposits from a single interactive computer graphics environment.
  - Intergraph mapping and data base management software is used for managing ownership, jurisdictional boundary information, site access, and well information.

Intergraph offers the following software for its workstations and servers:

**INTERGRAPH CORPORATION  
SOFTWARE PRODUCTS**

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<b>Architecture/Engineering/Construction</b> AEC Shell Bridge Designer II CADMIN CIVILCAD DACIS Home Builder EE Schematic Facility Design and Management Software (FDM) GWN-DTM Digital Terrain Modeling InFlow InRoads InSite Integral Building Information System Calculation* Integrated Building Information System Text* InterSect IPOGO IsoRAM IsoVU MAESTRO Maproute Master Architect MicasPlus Series ModelView Project Series STAAD-III/ISDS VI DataViews Series*	Intergraph/Mill Postprocessor Generator* Intergraph/Multi-Axis Milling Option Intergraph/NISA Interface Intergraph/Numerical Control Intergraph/Product Data Manager Intergraph/Product Data User Intergraph/Punch Option Intergraph/Sheet Metal Flat Pattern Package Intergraph/Thermal Cutting Option Intergraph/Wire Cutting Option MINT - Major Internal Structure Definition* MOLDFLOW MOLDFLOW-TP MOLDTEMP NCimStation NISA/3D-FLUID NISA-Composites NISAOPT PATCHGEN - Patch Generation PULSENET - Transient Waves in Networks RASDAS - Rational Structural Design Analysis RIMBAUD SEHAM SEPS SFOLDS - Naval Architecture Design Analysis SHELLDEF SILMA CimStation STRUC - Internal Structure Design STWKDES - Steelwork Design WAVENET - Steady Waves in Networks
<b>Electronics</b> ABEL* ASIC Engineer/Series Amplifier Library Module Analog Series Applicon-In Translator Auto Board Tester Nucleus Automatic Placement BJT Library Module Benchtop Instrument Interface Bridgeport Drill & Router Postproc. CAM Engineer CASE Electronics Interface CSPICE Cost Effectiveness Analysis Program* Design Engineer Digital Analysis Tools Diode Library Module Direct Writing Machine Software Dynapert Series EDIF Netlist ESP 7200 Auto Board Tester Postprocessor Excellon Postprocessor Series Factron Postprocessor Series Feedback FutureNet Netlist GATES*	<b>Miscellaneous</b> C-macs <sup>®</sup> Editor Configuration Management Tool (CMT) FIBRPLAN IGES PARSER/VERIFYER KES (Knowledge Engineering System) MasterPlan Q-Calc Standard UniPress Emacs vi-PLUS WORD ERA  <b>Nucleus Software Packages</b> INGRES Database Manager* INGRES Embedded Preproc. for C* INGRES Embedded Preproc. for FORTRAN* INGRES/Applications* InformixC-ISAM* Informix Run Time License* Informix-4GL Application Dev. Language* Informix-ESQL/C Emb. SQL & Tools for C* Informix-SQL RDBMS* Intergraph/Network File Manager

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<p>GDS II In/Out Interface  GenRad Postprocessor Series  Gerber Formatter*  HILO Series*  HP 306XX Auto Board Tester Postprocessor  Hybrid Series**  IKOS Hardware Simulator Interface  Integri-Test Auto Board Tester Postprocessor  JFET Library Module  MOSFET Library Module  Maintainability Effectiveness Analysis Program*  Marconi 80X Auto Board Tester Postprocessor  NC Nucleus Series  OK Wire Wrap Postprocessor  PCB Series**  PDI 4000 Auto Board Tester Postprocessor  Parasitic Parameters Analysis**  Philips SMD MCM1 NC Inserter Postprocessor  Pole/Zero Analysis  Posalux NC Drill and Router Postprocessor  Redac-In Translator  Reliability Effectiveness Analysis Program*  Scicards-In Translator  Sleb &amp; Meyer NC Drill and Router Postproc.  Standard Logic WWM-XXX Wire Wrap Postproc.  Starter Analog Library Module  Statistical Analysis Module  Stitchweld Model 357-N Wire Wrap Postproc.  TDK NC Inserter Postprocessor  Tiger-PCB Autorouter**  Trudill Postprocessor Series  Universal Postprocessor Series  Wire Wrap Nucleus  XILINX Netlister  ZYCAD Hardware Accelerator Interface  Zehntel Model 810 Auto Board Tester Postproc.</p> <p>Electronic Publishing  DP/Manager  DP/Manager User  DP/Paint**  DP/Presenter  DP/Publisher**  Wordperfect*</p> <p>Mapping  CPS-3™  GWN-COGO  Intergraph/Scanning Software  Intergraph/Symbol Character Recog. Software  Intergraph/Vectorization Software  Map Publisher  S.C.I.P.S. (Soil Cell Info. Parceling System)  SpatialData  TIGRIS Series</p>	<p>Intergraph/User Interface Builder  ORACLE Easy*SQL Database Utility*  ORACLE Pro*C Programmatic DB Interface*  ORACLE Pro*FORTRAN Prog. DB Inter.*  ORACLE RDBMS Base Product*  ORACLE SQL*Utilities*  ORACLE SQLNet Network DB Comm. Fac.*  ORACLE SQL*Net TCP/IP DB Comm. Proto.*  ORACLE SQL*Plus Database Utility*  ORACLE SQL*ReportWriter Database Utility*</p> <p>Petroleum Software Packages  ASSISTANT<sup>H</sup>  CIRC  EOW-PAK  GASP  LogStation  Maya System  PRESIM  Stratamodel  TDAS  TerraStation  VIP-COMP  VIP-CORE  CIP-DUAL  VIP-ENCORE  Vortex</p> <p>Plotting Software Packages  Benson 96XX Device Drivers  CalComp 107X Device Drivers  Dot Matrix Device Driver  Hewlett-Packard 7475 Device Driver  Hewlett-Packard 75XX Device Driver  InterPlot  Intergraph Type 9 Raster Output Driver  Shinko CHC645 Device Driver  V80 Device Driver  V80 Workstation Plotting  Versatec 72XX Device Driver  Versatec 74XX Device Driver  Versatec 85XX Device Driver  Versatec CE32XX Device Driver  Versatec CE34XX Device Driver  Xerox 4045 Device Driver</p> <p>System Software Packages  BSC/3270*  BSC/RJE*  C Compiler*  C + + Translator*  CS/200 Boot Image*  Documenter's Workbench<sup>R</sup>  EMACS**  Figaro Run Time License*  Fortran-77 Compiler*</p>

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
Mechanical & Manufacturing AutoMod II Series Binary Cutter Location Interface B-LINES - Hull Form Definition BL2IG - B-LINES Interface to Intergraph BRITSHSHELL - Shell arrangement and plate devel. BRITSHIPS CODES - Conceptual Design System COSMOS/M DISPLAY II ELECTRO - Electrical Routing System ENDURE FEAP FIDAP GENSURF HS2IG - HULLSURF Interface to Intergraph HULLDAS - Hull Design Analysis System HULLGEN - Hull Form Generation HULLSURF - Hull Surface Definition IGCAD IGRIP Intergraph/Cooling Analysis Intergraph/2.5-Axis Milling Option Intergraph/3-Axis Mill & Lathe Postproc. Gen.* Intergraph/ANSYS Interface Intergraph/Cincom Interface Program Intergraph/Engineering Modeling System Intergraph/Finite Element Modeling/Solver Intergraph/Flow Analysis Intergraph/Image Man. & Graph. Editing Sys. Intergraph/Kinematics Mechanism Modeling** Intergraph/Lathe Option Intergraph/Lathe Postprocessor Gen.* Intergraph/MSC Interface Intergraph/Mechanical Drafting System Intergraph/Mechanism Modeling Intergraph/Mill and Lathe Postproc. Generator*	MFCbase MicroStation 32* MicroStation 32 Customer Support Library* NKR BASIC Interpreter* Network File System* Pascal Compiler* Prior Graphical Kernel System (GKS)* QTC Math Advantage (C Version)* QTC Math Advantage (FORTRAN Version)* Remote File Sharing* SNA/3270* SNA/RJE* SoftPC* TCP/IP Intergraph Tektronix 4107 Terminal Emulation* Template Graphics Software Figaro* XNS/VTP*  Translator Software Packages Applicon 8XX to Intergraph Translators* AutoCAD Translators* AutoTrol GS1000 to Intergraph Translator* CADAM Translators* CADD Translators* CATIA to Intergraph Translator* Intergraph Translators* POWRTRAN-PC Unigraphics II Intergraph Translator*  Utilities Software Packages Electric FIDS Designer FRAMME Designer MicroStation 32 Raster Graphics Editor Telephone FIDS Designer Water FIDS Designer

\*Indicates third-party software

\*\*Jointly owned by Intergraph and a third-party vendor

Intergraph has the following marketing agreements:

**INTERGRAPH CORPORATION  
MARKETING AGREEMENTS**

VENDOR	MARKETING AGREEMENT
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U.S. offices are located by region as follows:

- West Coast: Irvine, Pasadena, San Jose, and Solana Beach (CA); Portland (OR); Seattle (WA); and Phoenix (AZ).
- Western: Englewood (CO); Overland Park (KS); Metairie (LA); Tulsa (OK); and Austin, Dallas (2), Houston, and San Antonio (TX).
- Midwest: Bettendorf (IA); Indianapolis and Crown Point (IN); Birmingham and Lansing (MI); Minnetonka (MN); Ballwin (MO); Columbus, Cleveland, and Dayton (OH); and Milwaukee (WI).

- Southeast: Birmingham (AL); Winter Park and Tampa (FL); Atlanta (GA); Lexington (KY); Raleigh (NC); and Memphis (TN).
- Northeast: Bridgeport (CT); McLean (VA); Westborough (MA); Lyndhurst (NJ); Clinton and Rochester (NY); and King of Prussia and Pittsburgh (PA).

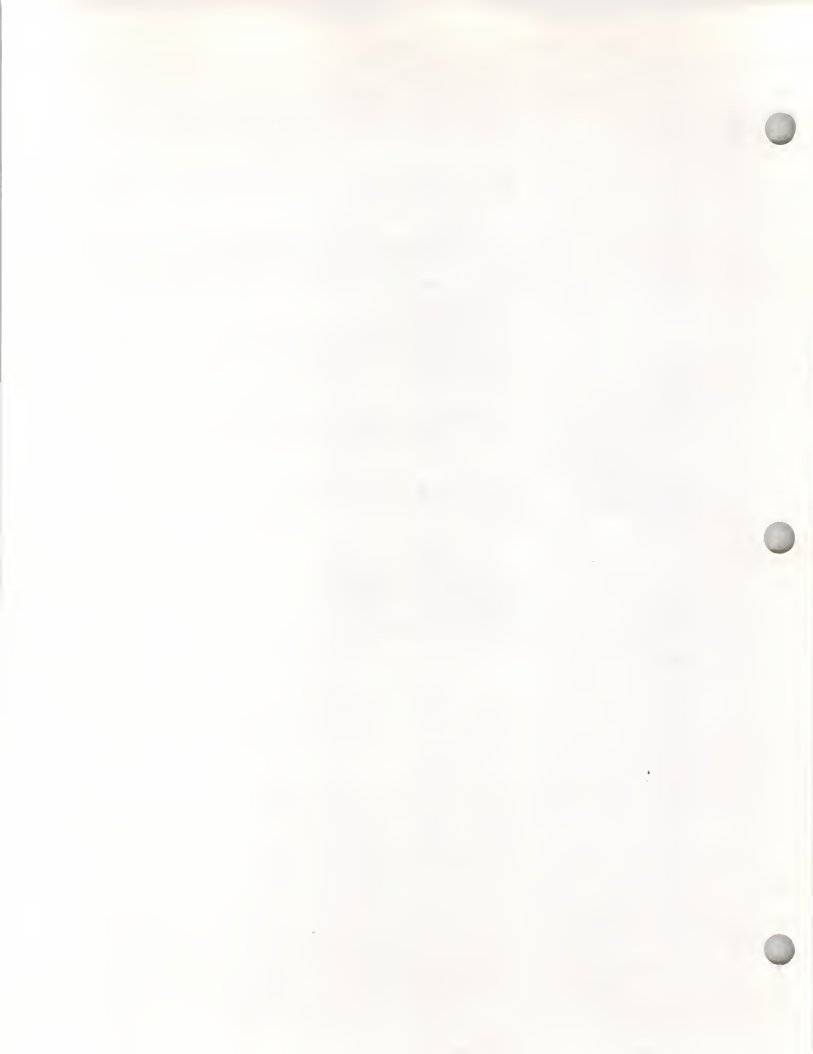
Intergraph has wholly owned foreign subsidiaries in Belgium, Denmark, Finland, France, Italy, The Netherlands, Norway, Spain, Sweden, Switzerland, the U.K., West Germany, Brazil, Singapore, Canada, Japan, and Korea.

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- 7 DEC MicroVAX IIs, Micro VMS





## COMPANY BRIEF

Primary Industry-Specific Market: Manufacturing

### **Integrated Automation, Inc.**

1301 Harbor Bay Parkway  
P. O. Box 4004  
Alameda, CA 94501  
(415) 769-5400

CEO: David L. Fain, President  
Private Company  
Founded: 1979

Employees: 250 (7/86)  
Revenue (FYE 12/31/85): \$24 million\*

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**The Company:** Manufactures computerized automation systems and products based on artificial vision and digital data processing technology

### **Sources of Revenue:**

- Turnkey Systems

### **Key Products:**

- Turnkey Systems (Utilizes IBM Series/1 minicomputers)
  - Factory and Warehouse Automation Systems
- Turnkey Systems
  - CD-ROM-Based Storage/Retrieval Systems

### **Target Industries:**

- Discrete manufacturing
- Process manufacturing

### **Geographic Markets:**

- U.S. (100%)

### **Significant Events:**

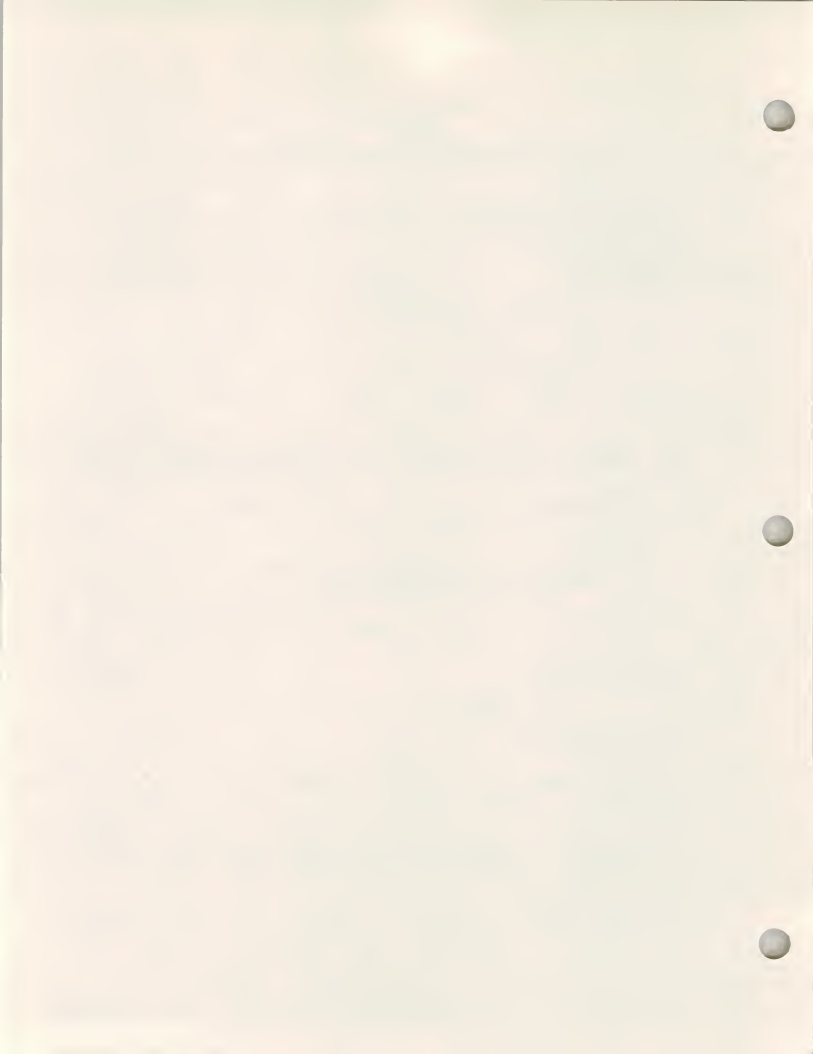
- Acquired Paladin Software Corporation in January 1986

### **Other:**

- Major Customers: Internal Revenue Service, Federal Express, General Electric (Steam Turbine Division)
- More than 40% of company stock is owned by Teknekron Inc.

\*INPUT estimate

October 1986



D RAPPED

#### COMPANY HIGHLIGHT

INTEGRATED DATA CORPORATION  
2283 Fairview Road  
Costa Mesa, CA 92626  
(714) 631-0070

Jerome Helperin, President  
Division of Safeguard Business  
Systems Inc., a wholly owned  
subsidiary of Safeguard Indus-  
tries  
Total employees: 220  
Computer services revenues,  
fiscal year end 12/31/77:  
\$3.8 million\*

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COMPANY BACKGROUND: In 1955, Integrated was incorporated in Delaware by Jerome Helperin as a batch processing service bureau. In 1976, the company began to convert from batch to online services. It currently offers a mix of local batch, remote batch, and interactive computing services.

#### OVERALL ASSESSMENT:

- Company management claims that Integrated is financially stable (7% to 10% profitability in 1976) and is regarded by clients as a high quality data processing service bureau.
- The company is currently adding approximately 30 new users per month. The emphasis is on acquiring smaller users. Client billings range from \$150 to \$17,000 per month; new users average about \$300 per month.
- The company milestone for 1976 was the introduction of a conversational monitoring system permitting online program development and testing. In this and other areas, the company is able, according to management sources, to offer quality products at a reasonable price.
- Integrated's delay in converting to online from batch processing may have softened its competitive position, particularly in manufacturing. However, it expects the addition of remote computing services to strengthen its position. Company policy is to avoid highly competitive market areas.

\* Estimate by Integrated management

## COMPANY HIGHLIGHT/INTEGRATED DATA CORPORATION

### KEY PRODUCTS AND SERVICES:

- Batch processing will generate 79% of revenues in fiscal year 1977. Services include general business (general ledger, accounts receivable), golf handicapping, manufacturing cost systems, and dental billing.
  - General business processing was introduced in 1965 and has 1400 users.
  - Golf handicapping, introduced in 1955, is used by 1000 clubs.
  - Manufacturing cost systems, introduced in 1966, have about 75 users and is the driving force for Integrated's conversion to online processing.
  - Dental billing, introduced in 1972, has 450 users. Integrated claims to have the largest revenue base of all available dental billing systems.
- In 1977, Integrated will also provide off-site facilities management (10% of revenues), remote computing (5% of revenues), and consulting for its other services (5% of revenues).
- By year end 1978, remote computing will be generating about 20% of revenues. Integrated will provide IBM System 3, Texas Instruments Silent 742 and other minicomputers in conjunction with its remote computing services.

APPLICATIONS: Integrated applications are 90% general business and 10% data base.

INDUSTRY MARKETS: Forty percent of revenues were derived from the banking and finance industry in 1976, 25% from medical and hospital, 10% from discrete manufacturing, and 25% from the services industry. This will remain constant through 1977.

GEOGRAPHIC MARKETS: In 1975, 80% of Integrated revenues were derived from the Pacific Coast region and 20% from the Mountain states. In 1977, 60% will be derived from Pacific and 40% from the Mountain states. Integrated has a branch office in San Francisco.

COMPUTER HARDWARE AND SOFTWARE: Integrated has an IBM 370/135 DOS/VS which will be upgraded to a 370/148 in July 1977. It uses Cincom's TOTAL data base management software. All terminals are installed at the client location.

## COMPANY PROFILE

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### **INTEGRATED HEALTH SYSTEMS INC.**

4275 Executive Square  
Suite 550  
La Jolla, CA 92037  
(619) 453-3600

Marlene Moncure, President and CEO  
Wholly Owned Subsidiary of Dynatech Corporation  
Total Employees: 50  
Total Revenue, Fiscal Year End  
3/31/90: \$4,000,000\*

\*INPUT estimate

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#### **The Company**

Integrated Health Systems Inc. (IHS), founded in 1979, develops, markets, and supports IBM AS/400-based application software products for the health care industry. The company is an IBM Industry Application Specialist Business Partner for the health care industry.

IHS operated as a private company until it was acquired by Dynatech Corporation of Burlington (MA) in February 1989 for \$3.7 million. The acquisition was accounted for as a purchase.

- Dynatech, with fiscal 1990 revenue of over \$433.3 million, provides a range of equipment, instruments, and systems related to information display, measurement, analysis, and control for communications, scientific, and medical and diagnostic applications.

#### **Key Products and Services**

One hundred percent of IHS' revenue is derived from application software products and associated support services.

IHS offers integrated information management systems designed and written specifically for the IBM AS/400 computer in native RGP/400 code. IHS products address the three primary areas of patient management, financial management, and clinical management.

- The greatest area of growth for new products over the past year has been in clinical management systems. In 1989 and 1990, IHS announced a new Nursing Information Management System, and Resource Scheduling, Utilization Review, and Radiology Management systems.
- During 1989, IHS expanded its product offerings to include the Clinic Care System for outpatient treatment facilities. The system coordinates a 24-hour outpatient environment and

permits central access of information in the areas of patient care, financial applications, and clinical management.

IHS applications include:

- Patient Accounting
  - Patient registration
  - Patient billing
    - Contract management
    - All payor logs
  - Accounts receivable
  - Medical records
    - Abstracting
    - DRG/case mix reporting
    - Chart management
  - Home health
- Financial Management
  - General ledger
    - Budgeting
    - Statistics
    - Financial reporting
  - Cost accounting
  - Materials management
  - Accounts payable
- Clinical Management
  - Nursing information
  - Physician access
  - Order communications
  - Resource scheduling
  - Utilization review
  - Pharmacy management
  - Outpatient pharmacy
  - Radiology management
  - Tumor registry
  - Laboratory link

IHS currently has its software installed at over 60 health care facilities nationwide.

### **Industry Markets**

One hundred percent of IHS' revenue is derived from the health care industry.

Clients range in size from small community hospitals of 40 beds to large, multiple service, regional medical centers of 650 beds.

**Geographic  
Markets**

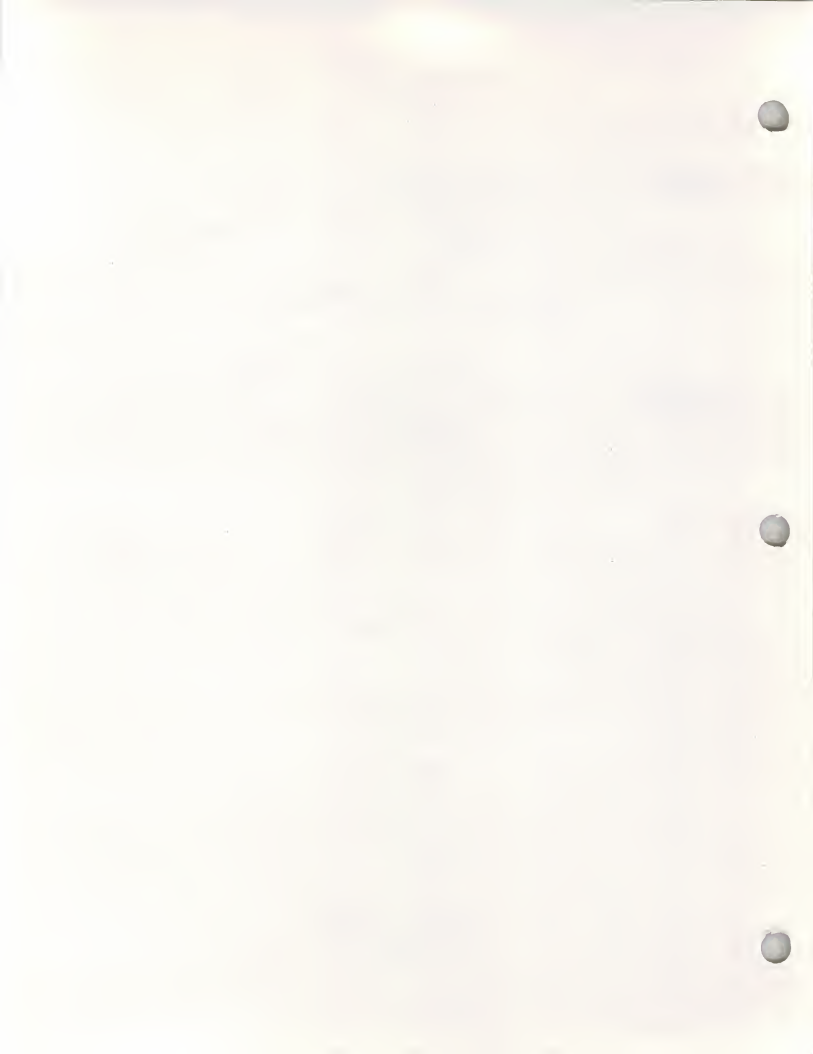
One hundred percent of IHS' fiscal 1990 revenue was derived from the U.S., including Hawaii.

Branch offices are located in Long Beach and Sacramento (CA) and Kent (WA).

IHS is currently involved in finalizing contract negotiations with a Hong Kong company which will represent IHS products in that area.

**Computer  
Hardware**

IHS has one IBM AS/400 computer installed at its headquarters in La Jolla.





## COMPANY PROFILE

### INTEGRATED HEALTH SYSTEMS, INC.

4275 Executive Square, Suite 550  
La Jolla, CA 92037  
(619) 453-3600

Tom Bilby, President and CEO  
Private Corporation  
Total Employees: 45  
Total Revenue, Fiscal Year End  
6/30/87: \$3,000,000

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### THE COMPANY

- Integrated Health Systems, Inc. (IHS) was founded by Tom Bilby and incorporated in 1979. IHS develops, markets, and supports IBM System/38-based application software products for the health care industry. IHS also offers professional consulting and software development services associated with its software products.
- Revenue for fiscal 1987 was approximately \$3 million. IHS management projects fiscal 1988 revenue will reach approximately \$4.5 million.
- As of June 30, 1987, the company employed 45 persons.
- Major competitors include Baxter Systems (Baxter Healthcare Corporation), McDonnell Douglas Healthcare System Company (McDonnell Douglas Corporation), Shared Medical Systems Corporation, and Science Applications International Corporation.

### KEY PRODUCTS AND SERVICES

- IHS offers hospital management application software products designed and written specifically for IBM System/38 computers. The products are fully integrated and address the following three areas:
  - Patient Accounting. Modules include the following:
    - Patient Registration/ADT manages all types of patient registrations from pre-admission to discharge.
    - Patient Billing, an interactive, on-line program that provides for generation of a host of reports which reflect daily hospital activities and transactions.
    - Account Receivable, an on-line patients' payment program.
    - Medical Records Abstracting and DRG/CASE Mix Reporting receives information from Patient Registration/ADT and Exchanges information with Patient Billing.

## INTEGRATED HEALTH SYSTEMS, INC.

- Chart Management/Locator Management tracks patient charts for each doctor and highlights patient information that is missing.
- Patient Care. Modules include:
  - Order Communications, an automatic order entry system.
  - Pharmacy Management allows for medication orders to be placed directly with the hospital pharmacy.
  - Outpatient Pharmacy allows for outpatient medication orders to be filled by the hospital pharmacy.
  - Physician Registry is a fully integrated physician management system.
  - Tumor Registry System allows hospitals to keep track of patient tumor information, statistics, and treatment follow-up.
- Financial. Modules include:
  - Materials Management manages hospital's inventory control and purchasing needs.
  - Accounts Payable controls vendor invoices and disbursements.
  - General Ledger offers user-defined general ledger transactions and reporting options.
  - Payroll/Personnel maintains personnel and payroll information for the hospital.
  - Department Performance Reporting system is a fully interactive, real time system that merges accounts payable, accounts receivable, general ledger, revenue, payroll, and inventory information into a single data base.

### INDUSTRY MARKETS

- IHS provides its products and services to the healthcare industry, primarily to community hospitals.
- The company has approximately 30 community hospital clients, ranging in size from 50 to 600 beds.

## INTEGRATED HEALTH SYSTEMS, INC.

### GEOGRAPHIC MARKETS

- One hundred percent of IHS' fiscal 1987 revenue was derived from the U.S.
- Approximately 80% of the company's fiscal 1987 revenue was from Western U.S. and the remaining 20% was from Minnesota, Wisconsin, and Michigan.
  - The company is actively expanding its business to the metropolitan New York area.
- IHS has one branch office in Long Beach (CA). The office has eight employees.

### COMPUTER HARDWARE AND SOFTWARE

- Integrated Systems has two IBM System 38 computers installed at its headquarters in La Jolla (CA).



## COMPANY PROFILE

### **INTEGRATED MICROCOMPUTER SYSTEMS, INC.**

2 Research Place  
Rockville, MD 20850  
(301) 948-4790

John Yeh, President  
Private Corporation  
Total Employees: 452 (6/89)  
Total Revenue, Fiscal Year End  
9/30/88: \$27,000,000

### **The Company**

Integrated Microcomputer Systems, Inc. (IMS), founded in 1979, is a software development and systems integration company with experience in providing total systems solutions to commercial and government clients. IMS provides a range of systems engineering services which include mainframes, minicomputers, microcomputers, telecommunications, local area networks, data base management systems, office automation, life cycle management, computer security, imaging and publishing systems, and other information-related technology services.

IMS' fiscal 1988 revenue reached \$27 million, a 35% increase over fiscal 1987 revenue of \$20 million. A five-year revenue summary follows:

#### **INTEGRATED MICROCOMPUTER SYSTEMS, INC. FIVE-YEAR REVENUE SUMMARY (\$ millions)**

ITEM	FISCAL YEAR				
	9/88	9/87	9/86	9/85	9/84
Revenue	\$27.0	\$20.0	\$12.5	\$9.2	\$8.5
• Percent increase from previous year	35%	60%	36%	8%	70%

IMS management anticipates that fiscal 1989 revenue will exceed \$34 million.

IMS has operated profitably since 1979.

As of June 1988, IMS had 452 employees, segmented approximately as follows:

Scientists and engineers	67%
Technical professionals	20%
Administration	<u>13%</u>
	100%

### **Key Products and Services**

Approximately 85% of IMS' revenue is derived from its various professional services activities and 15% from systems integration services.

IMS offers expertise in systems design, development, and integration; office automation and advanced methods of automated processing; software and hardware development and conversion; command, control, communications, and intelligence (C<sup>3</sup>I); validation and verification testing; facilities management; data base and network development for full cycle support of logistics/procurement, records, and decision support; and education and training

Telecommunications and Networks. IMS has expertise in the analysis, design, implementation, and integration of local area networks (LANs), digital PBX systems, the Defense Data Network (DDN), and public packet switching networks (PSNs).

- The Navy Coastal Systems Center has selected IMS to provide a total turnkey LAN for its on-base data communications. This multi-year activity includes network design, installation, test, and integration, as well as operations and maintenance.
- The National Institutes of Health selected IMS to develop the Technical Specification for a Campus Area Network, including communication media, topology, phased implementation, cable plan specifications, and broadband system and equipment specification.
- For the Naval Supply Systems Command, IMS determined workload requirements for electronic image and data transfer under the Engineering Data Management Information and Control System.
- The Office of the Secretary of Defense (OSD) selected IMS to design a system architecture for the OSD Secure OA/LAN and to develop techniques for optimization of total network encryption requirements.

### C<sup>3</sup>I, Logistics, and Security.

- In support of the Deputy Chief of Naval Operations (Air Warfare), IMS participated in an array of ADP and resource monitoring programs. Specific systems IMS has developed, enhanced, modified, and maintained include: Aircraft Planning and Programming Model, Aircraft Module Dictionary, Naval Aircraft Inventory Management System, and Naval Training Instrument Procedures Systems.
- IMS ported the Army Mobilization Base Requirements Model (MOBREM) from a Unisys 1100/81 to a Unisys 1100/72. IMS also had responsibility for processing the MOBREAEMA modem, reviewing diagnostic reports, and distributing outputs to some 200 CONUS installations.
- As part of the Air Force Logistics Command's efforts to modernize procurement of spare parts, repairs, services, supplies, fuel, and air munitions for weapons systems worldwide, IMS designed and implemented the Contracts Data Management System in support of central procurement processing and on-line contract management operations.
- IMS had developed and markets the Serial Encryption Unit (SEU), an encryption device for high-speed, point-to-point secure communications in a distributed environment.

### Systems Integration.

- IMS completed the design and implementation of a pilot system for inventory management and procurement support for Department of the Navy imaging equipment. The pilot configuration includes a DEC VAX 8300 and three Xerox Ethernets with over 40 Xerox 6085 workstations. IMS installed the pilot hardware and software, and implemented the data base using ORACLE in both the workstation and VAX environment.
- One of several integrated management information systems designed and implemented by IMS for the U.S. Marshals Service was the District Automation Project. The system uses C programs, the UNIFY data base management system, and data base machines to accomplish district accounting, prisoner population management, a warrant information network, and jail contract management.
- IMS performed the system integration and installation of the Space Information Management System (SIMS) to provide a

decision support and office automation capability to the Naval Space Command and its subordinates. SIMS is a secure LAN and secure UNIX-based system that supports various workstations, including microcomputers, high resolution graphics workstations, and color graphics imaging output devices.

**Other.**

- Since 1983, IMS has provided the Secretary of the Navy with design and development support for the Department of the Navy OA and Communications System (DONOACS). IMS is the sole contractor supporting the Secretariat Headquarters Information Processing System which track all executive correspondence using a network of DEC VAX computers.
- For the David Tayler Research Laboratory, IMS has provided network design guidelines for the implementation of office automation and local area networks for principal Naval R&D Centers.
- IMS researched, defined, and documented the impact supercomputers (Cray-2 and Cray X-MP) would have on the Naval Surface Warfare Center.

**Industry Markets**

Approximately 95% of IMS' fiscal 1988 revenue was derived from various agencies of the U.S. federal government. The remaining 5% was derived from commercial clients.

Federal clients include The Departments of State, Commerce, Justice, Agriculture, and Treasury; the National Institutes of Health; NASA; and various units of the Department of Defense, including the Army, Navy, Air Force, Marine Corps, logistics agencies, weapons centers, testbeds, and research laboratories.

Commercial clients include Martin Marietta, AT&T, Dynamac Corporation, Computer Sciences Corporation, Marriott Corporation, and Texas Instruments.

**Geographic Markets**

IMS has clients in Washington, D.C. and six states across the U.S.

The IMS corporate headquarters is located in Rockville (MD). IMS maintains branch offices in Dahlgren and Arlington (VA), Dayton (OH), Panama City (FL), and Ridgecrest (CA) in support of local clients. IMS also owns an overseas subsidiary in Taipei, Taiwan.



**Computer  
Hardware and  
Software**

IMS has the following computers installed at its data center in Rockville for customer support:

- 1 IBM 4381/R24 P14 Dual Processor, MVS/XA/CICS
- DEC VAX 11/750, UNIX
- CCI POWER 6/32, UNIX
- TI DS990-20, DX10



# FINANCIAL UPDATE TO PROFILE DATED JUNE 1985

INTEGRATED SOFTWARE SYSTEMS  
CORPORATION (ISSCO)  
10505 Sorrento Valley Road  
San Diego, CA 92121  
(619) 452-0170

Peter Preuss, Chairman and CEO  
Meldon K. Gafner, President  
Public Corporation, OTC  
Total Employees: 344  
Total Revenue, Fiscal Year End  
12/31/85: \$40,367,000

## INTEGRATED SOFTWARE SYSTEMS CORPORATION FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

FISCAL YEAR ITEM	1985	1984	1983	1982	1981
Revenue	\$ 40,367	\$ 33,632	\$ 24,177	\$ 16,623	\$ 10,705
• Percent increase from previous year	20%	39%	45%	55%	66%
Income before taxes	\$ 7,702	\$ 8,168	\$ 5,551	\$ 3,329	\$ 1,986
• Percent increase (decrease) from previous year	(6%)	47%	67%	68%	40%
Net income	\$ 4,506	\$ 4,228	\$ 3,001	\$ 1,749	\$ 1,052
• Percent increase from previous year	7%	41%	72%	66%	34%
Earnings per share	\$ 0.81	\$ 0.80	\$ 0.60	\$ 0.43	\$ 0.27
• Percent increase from previous year	1%	33%	40%	59%	29%

### SOURCE OF REVENUE

- One hundred percent of ISSCO's 1985 revenue was derived from license fees of its software products and associated customer support and renewal fees. A three-year summary of source of revenue follows (\$ thousands):

ITEM	FISCAL YEAR		
	1985	1984	1983
Product license fees	\$ 28,511	\$ 24,492	\$ 17,138
. Percent increase from previous year	16%	43%	42%
Customer support and renewal fees	\$ 11,856	\$ 9,140	\$ 7,039
. Percent increase from previous year	30%	30%	53%

- Approximately 20% of 1985 revenue was derived from various agencies and departments of, and certain contractors to, the U.S. government.
- Ninety percent of ISSCO's 1985 revenue was derived from sales in the U.S. and 10% was derived from international sales.

#### NEW PRODUCTS AND SERVICES

- Major releases/announcements made by ISSCO during 1985 included:
  - The release of enhanced versions of the company's basic graphics software products, DISSPLA 10.0 and TELLAGRAF 6.0.
  - The introduction of two new software options to DISSPLA software: DYNAMICS for interactive editing and designing of graphs and GKS for implementation of graphics standards.
  - The introduction of three new software options to TELLAGRAF: PINPOINT for interactive editing of graphics elements, PC LINKAGRAF to turn a personal computer into a graphics terminal, and a CUECHART CHARTBOOK LIBRARY of three pre-designed graphics formats for specialized applications.

# FINANCIAL UPDATE TO PROFILE DATED JUNE 1985

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10505 Sorrento Valley Road  
San Diego, CA 92121  
(619) 452-0170

Peter Preuss, Chairman and CEO  
Meldon K. Gafner, President  
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# INTEGRATED SOFTWARE SYSTEMS CORPORATION (ISSCO)

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## COMPANY PROFILE

### INTEGRATED SOFTWARE SYSTEMS CORPORATION (ISSCO)

10505 Sorrento Valley Road  
San Diego, CA 92121  
(619) 452-0170

Peter Preuss, Chairman and CEO  
Meldon K. Gafner, President  
Public Corporation, OTC  
Total Employees: 280  
Total Revenue, Fiscal Year End  
12/31/84: \$33,632,000

---

### THE COMPANY

- Integrated Software Systems Corporation (ISSCO), founded in 1970, develops, markets, and supports a family of integrated computer graphics software products for business and scientific applications.
  - In March 1983 ISSCO completed an initial public offering of 1,401,500 shares of common stock at \$16 per share. The company sold 970,000 shares and the remainder were offered by certain stockholders. The proceeds of this offering were \$14.6 million.
  - In March 1985 ISSCO completed a second public offering of 771,940 shares of common stock at \$22.75 per share, of which 471,940 were offered by selling shareholders and 300,000 shares were offered by the company. Net proceeds to ISSCO of \$6,070,000 will be used for possible acquisitions of software companies and products, as well as for working capital.
- Revenue for 1984 was \$33.6 million, a 39% increase over \$24.2 million in 1983. Net income rose 41% from \$3.0 million in 1983 to \$4.2 million in 1984.
- Revenue for the six months ending June 30, 1985 was \$16.3 million, a 27% increase over \$12.8 million for the first six months of 1984. Net income for the period rose 44% to \$1,033,000 from \$719,000 for the comparable period last year.
- A five-year financial summary follows:

# INTEGRATED SOFTWARE SYSTEMS CORPORATION (ISSCO)

## INTEGRATED SOFTWARE SYSTEMS CORPORATION FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

FISCAL YEAR ITEM	1984	1983	1982	1981	1980
Revenue	\$ 33,632	\$ 24,177	\$ 16,623	\$ 10,705	\$ 6,453
• Percent increase from previous year	39%	45%	55%	66%	109%
Income before taxes	\$ 8,168	\$ 5,551	\$ 3,329	\$ 1,986	\$ 1,421
• Percent increase from previous year	47%	67%	68%	40%	193%
Net income	\$ 4,228	\$ 3,001	\$ 1,749	\$ 1,052	\$ 787
• Percent increase from previous year	41%	72%	66%	34%	171%
Earnings per share (a)	\$ 0.80	\$ 0.60	\$ 0.43	\$ 0.27	\$ 0.21
• Percent increase from previous year	33%	40%	59%	29%	320%

(a) Adjusted to reflect a 3.5-for-1 stock split effected in the form of a stock dividend in February 1983.

- ISSCO management attributes continued revenue growth principally to increased licensing of software products and options and, to a lesser extent, from new product introductions and price increases. Some growth is attributed to new geographic market areas, but much of the growth reflects the expansion of the market for graphics software in general.
- Research and development expenditures, including personnel, facilities, and computer usage, were \$6.5 million in 1984 (19% of revenue), \$4.2 million in 1983 (17% of revenue), and \$2.9 million in 1982 (17.5% of revenue).
- Revenue for the three months ending March 31, 1985 was \$7.7 million, a 30% increase over \$5.9 million for the same period in 1984. Net income for the quarter rose 70% to \$420,000 from \$247,000 for the first quarter of 1984.
- As of December 31, 1984, ISSCO had 280 employees. The company currently has 300 employees segmented as follows:

Sales and marketing	125
Product research and development	65
Technical support	75
General and administrative	<u>35</u>
	300



## INTEGRATED SOFTWARE SYSTEMS CORPORATION (ISSCO)

- ISSCO's primary competition comes from hardware manufacturers that supply graphic software packages such as IBM, and certain turnkey vendors offering graphics applications such as Hewlett-Packard.

### KEY PRODUCTS AND SERVICES

- One hundred percent of ISSCO's 1984 revenue was derived from license fees of its software products and associated customer support and renewal fees. A three-year summary of source of revenue follows (\$ thousands):

ITEM \ FISCAL YEAR	1984	1983	1982
Product license fees	\$ 24,492	\$ 17,138	\$ 12,031
. Percent increase from previous year	43%	42%	66%
Customer support and renewal fees	\$ 9,140	\$ 7,039	\$ 4,592
. Percent increase from previous year	30%	53%	33%

- Software products are licensed to end users under perpetual license agreements for a one-time fee which includes the right to use the software in perpetuity, documentation, and one year of maintenance. ISSCO also licenses its software to service bureaus for a one-time license fee and an ongoing service fee based on customer usage.
- Customer support and renewal fees include revenue from the rental of software, usage fees from service bureaus, sale of instructional materials, education and training, and maintenance and enhancement fees. Annual maintenance agreements are available to customers for a fee equal to 12% of the perpetual license fee and provide for automatic updates or enhancements, documentation, hotline service, and problem analysis.
- ISSCO's software products operate on 32-bit or larger minicomputers or mainframes including Apollo, Burroughs, Control Data, Cray, DEC, Hewlett-Packard, Honeywell, IBM, Perkin-Elmer, Prime, and Univac.
  - The products are device independent, supporting more than 225 types of graphic output devices using media such as paper, overhead transparencies, 35mm slides, motion picture screens, and CRTs.
  - There are over 2,600 installations of ISSCO software, with approximately 170,000 users.
- ISSCO's family of integrated software, known as IVISST<sup>TM</sup> (Integrated Visual Information Systems Software), consists of graphics software, system integration software for integrating ISSCO's products with other software and hardware, and applications software for graphic enhancement of other applications. The line of software consists of the following component products:

- DISSPLA<sup>®</sup> (Display Integrated Software System and Plotting Language), introduced in 1970 as ISSCO's initial product, is a library of FORTRAN subroutines for computer programmers that can be used with COBOL, PL/I, Pascal, ALGOL, Assembly Language, and any other FORTRAN-compatible language to generate data representation graphics for scientific and engineering applications.
  - The basic system generates charts, graphs, maps, contours, text pages, and 3-dimensional surfaces.
  - Optional enhancements available include:
    - Shaded Fonts, for high resolution, presentation-quality graphics.
    - Business Features, for simplified creation of bar charts and pie charts.
    - World Coastlines, an option providing continental, political, and state boundaries in several different resolutions.
    - DISSPOP<sup>®</sup>, for post-processing of plot files in either background or batch mode.
    - Contouring, for showing 3-dimensional data in 2-dimensional plots.
    - Page Layout Facility, for integrating graphics with text and for formatting multiple graphics on a page.
    - Dynamics, an additional set of FORTRAN subroutines, for interactive control and input.
    - ISSCO-GKS, a library of FORTRAN functions based on the internationally recognized graphics standard, allows portability between different computers and operating systems.
  - There are currently 1,300 installations of DISSPLA. The system is priced from \$9,500 to \$61,000 depending upon the computer environment.
- TELL-A-GRAF<sup>®</sup>, introduced in 1978, is a conversational English command computer graphics system designed for use by those with little or no computer background to produce publication-quality graphics.
  - The latest TELL-A-GRAF, version 5.0, was released in May 1984 and includes the following enhancements:
    - Layout Intelligence<sup>™</sup>: provides automatic layout design on any media type and also lays out multiple plots per page.
    - Unlimited color choices through hue, saturation, and intensity specification, and 1,400 predefined colors.

## INTEGRATED SOFTWARE SYSTEMS CORPORATION (ISSCO)

- Metafile retrieval for merging stored graphics as symbols or curves, or in place of text.
- Other enhancements include additional chart types such as area, percent bar, and percent hidden bar; and capabilities for curve and area banking, high-low-close stock charts, and error bars.
- There are currently 1,300 installations of TELL-A-GRAF. The system (including CUECHART) is priced from \$9,500 to \$65,800 depending on computer environment.
- CUECHART<sup>T.M.</sup> is a user prompting system for TELL-A-GRAF, introduced in August 1982. The system contains a library of 100 pre-designed chart formats that the user can select from and prompts the user for input of specific data. The system ranges in price between \$4,300 and \$8,100.
- THE DATA CONNECTION<sup>T.M.</sup>, delivered in October 1982, is a group of four software products that retrieve data from computer files, data base management systems, or applications programs; perform mathematical computations; and then enter the data into TELL-A-GRAF for conversion into graphical displays. The system is priced between \$5,000 and \$32,400.
- TELLAPLAN<sup>®</sup> is a project management and planning applications software product that was introduced in November 1983.
  - TELLAPLAN provides capabilities to prepare plans and monitor schedules, including staff requirements by skill type and actual-versus-budget costing by department. Using English language commands, users can perform "what if" analysis without modification of original plan and can compute the path between tasks each time the plan is updated.
  - Through TELL-A-GRAF software a variety of charts can be generated by TELLAPLAN such as Gantt charts that display planned, actual, and estimated start and end dates; staff loading charts; and graph summaries of completed projects.
  - There are currently 330 installations of TELLAPLAN which ranges in price from \$3,200 to \$12,500 depending upon system size.
- IVISS MANAGER<sup>T.M.</sup>, announced in July 1984, is a graphics software package for IBM System 370, 43XX, and 30XX computers running under either VM-CMS or MVS-TSO.
  - The package provides a library of charts that can be updated automatically as new data becomes available; supports

immediate or deferred production of charts on all IBM hard copy devices and over 60 non-IBM devices; and provides full-screen panels for chart access, modification, or new chart creation.

- Three supporting packages are needed with IIVSS MANAGER: IBM's GDDM (Graphical Data Display Manager) Program Product; IBM's ISPF/PDF dialogue manager; and TELL-A-GRAF.
- Charts in IIVSS Manager can be generated using ISSCO's TELL-A-GRAF or DISSPLA software or any other software program that uses IBM's GDDM/GDF files such as ICU, APL-GRAPHIPAK, or GDQF. The charts received and distributed can be bars, pies, text, tables, maps, 3-D, Gantt, or any combination.
- The software provides full-screen, menu control, and on-line "help" functions.
- The IIVSS MANAGER is priced from \$18,600 for an IBM 4300 computer to \$36,800 for an IBM 3084. ISSCO received 61 orders for the product in 1984 and began deliveries in February 1985.
- TABLES<sup>TM</sup>, announced in July 1984, is a software option to TELL-A-GRAF that arranges numbers, words, and symbols into tabular form and can also draw upon TELL-A-GRAF data files to convert chart data into tabular form.
  - The software may also be integrated with THE DATA CONNECTION software for accessing data files, manipulating data, and displaying the data in tabular form.
  - The TABLES option allows TELL-A-GRAF to simultaneously display both tabular and graphics formats. Features of the option include calculating data for total, difference, average, and median results; creating tables and labels; intermixing of numeric tables and text columns; controlling character appearance, borders, underlining and background color.
  - The TABLES option is priced between \$1,000 and \$10,800 depending upon the host computer environment. In 1984 ISSCO received 159 orders for this option.
- MegaCalc<sup>TM</sup> is an electronic spreadsheet for IBM mainframes that can accept microcomputer spreadsheets uploaded from Lotus 1-2-3<sup>®</sup>, VisiCalc<sup>®</sup>, and SuperCalc<sup>®</sup>.
  - ISSCO began marketing MegaCalc in late 1984 under a world-wide non-exclusive licensing agreement with The Meta Group Inc. which developed and owns the product.

## INTEGRATED SOFTWARE SYSTEMS CORPORATION (ISSCO)

- When combined with ISSCO's IVISS MANAGER software, entire microcomputer spreadsheet models can be integrated with the mainframe system; mainframe spreadsheets can be created; spreadsheets from various microcomputers can be combined; and TELL-A-GRAF charts can be generated. Using ISSCO's THE DATA CONNECTION software, data can be retrieved from mainframe storage files and moved to microcomputers.
- MegaCalc operates on IBM 3270-type terminals using MVS/TSO and VM/CMS. The product is available at prices of \$19,000 and \$24,000 depending upon hardware.
- ISSCO also provides device drivers for its software to interface with more than 225 different graphics output devices. More than 90% of the interfaces are supplied to customers at no charge.
- ISSCO derives some revenue from usage fees from service bureaus that offer ISSCO products on their networks. Vendors offering ISSCO products include Boeing Computer Services, CDC Cybernet, GEISCO, Babcock and Wilcox Co., American Management Systems, and UCCEL.
- ISSCO provides customers with technical service via their "PIHOTline" and educational and training services through its AUI Data Graphics, Inc. subsidiary. Graphics technology seminars are held annually. ISSCO also publishes a quarterly magazine on graphics that is retailed to users.

### INDUSTRY MARKETS

- ISSCO's software products are marketed to large and medium-size organizations in a variety of industry sectors including aerospace, oil, automotive, finance, and government. Approximately 78% of revenue is derived from commercial customers and 22% from the U.S. government and its agencies.
- Currently, about 75% of commercial installations are used for business applications and 25% for scientific/engineering applications.

### GEOGRAPHIC MARKETS

- Eighty-six percent of ISSCO's 1984 revenue was derived from sales in the U.S. and 14% was derived from international sales.
- ISSCO has four foreign subsidiaries: ISSCO Australia Pty. Ltd. (North Sydney); ISSCO Deutschland GmbH (West Germany); ISSCO (UK) Limited (London); and ISSCO France SARL (Paris).
- Sales offices are located in Atlanta, Boston, Brielle (NJ), Chicago, Cleveland, Dallas, Detroit, Houston, Huntington Beach (CA), Indianapolis, Los Angeles, Minneapolis, New York City, Philadelphia, Pleasant Hill (CA), San Francisco, Seattle, Stamford (CT), St. Louis (MO), Washington, D.C., Toronto (Canada), and Hamburg, Dusseldorf, Frankfurt, and Stuttgart (Germany).

## COMPUTER HARDWARE

- ISSCO has the following mainframes and minicomputers installed for internal software development:
  - 1 IBM 370/165.
  - 2 DEC VAX 11/780s.
  - 1 Perkin Elmer.
  - 1 Prime 750.
  - 1 CDC 7600.
  - 1 Univac 1110.
  - 1 IBM 3083.

# FINANCIAL UPDATE TO HIGHLIGHT DATED APRIL 1982

**INTEGRATED SOFTWARE SYSTEMS  
CORPORATION (ISSCO)**  
10505 Sorrento Valley Road  
San Diego, CA 92121  
(619) 452-0170

Peter Preuss, President  
Public Corporation, OTC  
Total Employees: 163  
Total Revenue, Fiscal Year End  
12/31/82: \$16,623,073

## ISSCO FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

ITEM \ FISCAL YEAR	1982	1981	1980	1979	1978
Revenue	\$ 16,623	\$ 10,705	\$ 6,453	\$ 3,083	\$ 1,796
• Percent increase from previous year	55%	66%	109%	72%	N/A
Income before taxes	\$ 3,329	\$ 1,986	\$ 1,421	\$ 485	\$ 231
• Percent increase from previous year	68%	40%	193%	110%	N/A
Net income	\$ 1,749	\$ 1,052	\$ 787	\$ 290	\$ 150
• Percent increase from previous year	66%	34%	171%	93%	N/A
Earnings per share	\$ 0.43	\$ 0.27	\$ 0.21	\$ 0.05	\$ 0.02
• Percent increase from previous year	59%	29%	320%	150%	N/A

- ISSCO completed its initial public offering of 1,401,500 shares of common stock in March 1983 at \$16 per share. Of the shares, 970,000 were issued by the company and 431,500 by the selling stockholders.

### SOURCE OF REVENUE

- One hundred percent of ISSCO's 1982 revenue was derived from software products.





## COMPANY HIGHLIGHT

**INTEGRATED SOFTWARE SYSTEMS  
CORPORATION (ISSCO)**  
4186 Sorrento Valley Blvd.  
San Diego, CA 92121  
(714) 452-0170

Peter Preuss, President  
Private Corporation  
Total Employees: 130  
Total Revenue, Fiscal Year End  
12/31/81: \$11,500,000\*

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### THE COMPANY

- Integrated Software Systems Corporation (ISSCO), founded in 1970 by Peter Preuss, was a pioneer in the development of graphics software. The firm's two products, DISSPLA and TELL-A-GGRAPH, produce publication quality graphics for business and scientific/engineering uses.
- Revenue grew an estimated 80% between 1980 and 1981. 1982 revenue should be approximately \$20 million.
- ISSCO has two international subsidiaries: ISSCO Deutschland, established in 1979, and ISSCO-UK Limited, established in 1981.
- Competitors are Tektronics, IBM, and CalComp.

### KEY PRODUCTS AND SERVICES

- One hundred percent of ISSCO's revenue is derived from its graphics software products, either through direct in-house sales or royalty payments from processing services.
- DISSPLA and TELL-A-GGRAPH generate full color line, bar, and pie charts; tables and text; three-dimensional designs and charts; maps; and contour plots. These can be produced on more than 80 types of graphic output devices on media including paper, overhead transparencies, 35mm slides, motion picture film, and CRT screens.
  - Each product is perpetually licensed to the user for a one-time fee of \$19,500 to \$45,000.
  - Software support includes on-site installation and training, automatic updates, complete documentation, hotline service, and problem analysis. Support for the first year after licensing is included in the license fee. Subsequently, the customer pays an annual fee equal to 12% of his perpetual license fee.
  - There are over 1,000 installations of ISSCO software, with approximately 90,000 users.

\*INPUT estimate

- DISSPLA (Display Integrated Software System and Plotting Language) introduced in 1970, is written in FORTRAN, and can be used with COBOL, PL/I, PASCAL, ALGOL, Assembly Language, and any other language that is FORTRAN compatible.
  - DISSPLA operates on 32-bit or larger minicomputers or mainframes, including IBM, Burroughs, Control Data, DEC, Honeywell, Perkin-Elmer, Prime, Univac, and Cray.
  - Six optional enhancements are available:
    - World Coastline (mapping).
    - Contouring.
    - Business Enhancements (elaborate business graphics).
    - Page Layout (automatic placement of multiple plots on the page, with or without software typesetting).
    - Shaded Fonts (ultra-high resolution, high-quality character fonts, for presentation quality graphics).
    - DISSPOP (a post-processor which allows separation of the main program from the actual graphics output, enabling graphics to be processed at a future time).
  - DISSPLA has undergone many revisions. The latest, DISSPLA 9.0, added the capability to produce complete camera-ready artwork.
  - There are currently 550 installations of DISSPLA.
- TELL-A-GRAPH was introduced in 1977 to provide computer graphics for business executives with little or no computer background. Simple English commands, entered on a video display terminal, generate graphics output. TELL-A-GRAPH version 4.0, introduced in February 1981, produces, for the first time, true publication quality graphics. Earlier versions did not utilize improvements such as use of drop shadows, attention to line weight, and restriction of all text in a chart to a family of similarly styled typefaces.
  - Operational on 32-bit or larger mainframes and minis, TELL-A-GRAPH runs on IBM and plug-compatible mainframes, as well as computers by Prime, DEC, and Perkin-Elmer.
  - Optional enhancements include:
    - Shaded Fonts.
    - Post-Processor.
    - The Presentation Facility (generates pages of text for presentation with graphics).
    - Bank Data (a series of subroutines which allow TELL-A-GRAPH to access any applications program or data base).
  - The latest version, TELL-A-GRAPH 4.1, features more sophisticated graphics, and improved ease of use.

## INTEGRATED SOFTWARE SYSTEMS CORPORATION (ISSCO)

- There are 450 installations of TELL-A-GRAPH to date.
- Most major timesharing vendors offer ISSCO's products on their networks. These include AVCO Computer Services, Boeing Computer Services, CDC Cybernet, Comshare, CSC Infonet, GEISCO, National CSS, Tymshare, and University Computing Company. Approximately 5% of ISSCO's revenue is derived from license agreements with service bureaus.
- Service bureaus pay a monthly royalty based on the number of vectors drawn.
- Approximately 90% of ISSCO's revenue is derived from sales directly to end users. Prior to establishing its own sales force in 1981, products were marketed through contracted agents.
- ISSCO licenses DISSPLA and TELL-A-GRAPH to about five OEMs. Approximately 5% of ISSCO revenue comes from OEM licensing.
- ISSCO plans to offer a much more extensive family of graphic products in the future, including enhancements for ease of use, data access, and higher quality graphics.

### INDUSTRY MARKETS

- Products are marketed to large- and medium-size organizations in all industry sectors. Approximately 80% of ISSCO's revenue is from commercial customers and 20% comes from federal and state governments.
- The business market for ISSCO's software has been expanding more rapidly than the scientific/engineering market, and the company expects this trend to continue. Currently, about 75% of ISSCO's commercial installations are used for business applications, and 25% are used for scientific/engineering applications.

### GEOGRAPHIC MARKETS

U.S.	89%
International	11%
Europe	(9%)
Canada	(1%)
Other	(1%)

- Sales offices are located in San Diego, Houston, Dallas, Philadelphia, Orange County (CA), Chicago, Atlanta, Boston, Washington, D.C., New York City, Tampa, and San Francisco.

# INTEGRATED SOFTWARE SYSTEMS CORPORATION (ISSCO)

## COMPUTER HARDWARE

- ISSCO uses the following mainframes and minicomputers for software development:
  - 1 IBM 370/165.
  - 2 DEC VAX 11/780s.
  - 1 Perkin Elmer.
  - 1 Prime 750.
  - 1 CDC 7600.
  - 1 Univac 1110.

## COMPANY HIGHLIGHT

### INTEL SYSTEMS CORPORATION

12675 Research Boulevard  
P.O. Box 9968  
Austin, TX 78766  
(512) 258-5171

Betty M. Niimi, General Manager  
Subsidiary of Intel Corporation  
Total Employees: 330  
Total Revenue, Fiscal Year End  
12/31/81: \$16,000,000\*

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### THE COMPANY

- Intel Systems Corporation was founded in 1965 as Management Research International, an operations research and consulting firm. In 1968 the company became MRI Systems and was principally engaged in the development, marketing, licensing, and maintenance of generalized data base systems software products, primarily the SYSTEM 2000® data base management system. In February 1979 MRI was acquired and became Intel Systems Corporation, a subsidiary of Intel Corporation, which is headquartered in Santa Clara (CA).
  - Intel's semiconductor expertise and MRI's experience in systems design and development were combined for the integration of hardware and software in storage management functions.
  - Intel Systems subsequently introduced a family of products, including a fully integrated data dictionary, an enhanced data base management system, distributed data base facilities, data communications options, and data base hardware.
- Revenue for 1981 is estimated at \$16 million, a 23% increase over the 1980 estimate of \$13 million.
- Intel Systems Corporation provides software, integrated hardware, systems sales, and product services. The company is Intel's data base technology center providing advanced data base management systems and related applications consulting. Intel Systems has two operational units:
  - Systems Sales provides worldwide sales, consulting, and education for Intel Systems' complete product line. The software license operations of SYSTEM 2000 were integrated into this group in 1980 to provide support for remote computing services vendors.
  - Product Services offers field service and technical support for the operation's products.
- Intel Systems Corporation, with related consulting and educational personnel, has 330 employees.

\* INPUT estimate

## INTEL SYSTEMS CORPORATION

- Major competitors of Intel Systems include IBM, Cullinane Corporation, and Software AG of North America.

### KEY PRODUCTS AND SERVICES

- Intel Systems Corporation derives the majority of its revenue from software products and the balance from applications consulting and education.
- Early in 1980 Intel Systems announced major enhancements to SYSTEM 2000, a generalized data base management system, and is now marketing it as part of an Information Resource Management product family. SYSTEM 2000 has been installed in over 500 locations and is offered on a services basis by the company's 38 licensees.
  - SYSTEM 2000 runs on IBM, Control Data, Univac, and IBM-compatible mainframes. A typical configuration ranges from \$80,000 to \$100,000, depending on modules selected. Transaction processing for on-line systems and large-volume batch access are supported. Interfaces provided include: INTERCOMM, TSO, and TONE. Coordinated DB/DC is supplied for CICS/VS. SYSTEM 2000 includes the following:
    - PLEX is Intel's Programming Language Extension to COBOL, FORTRAN, PL/I, and Assembler. It is designed for high-volume, production-oriented environments.
    - QUEST is a user-friendly, relational query/update language. It is designed for nontechnical users and as a productivity aid to application developers. QUEST commands include basic retrieval formats, item modifications, and commands to insert and remove records.
    - Report Writer allows both end users and programmers to describe multiple reports with a free-form language and to generate reports against all or selected portions of a data base.
    - The Genius subsystem is a conversational report generator within Report Writer that prompts the user through the report production process. A graphics interface to popular graphics packages enables the user to convert his report to pictorial form.
    - QueX (Query/Update by Example) is an end user productivity aid that supports function-driven query/update, multiple data base access, and full prompting.
- The Integrated Data Dictionary (IDD) permits users to add, delete, or change data items, records, and definitions even after the data base is in production. Its define/control facility for the implementation of data bases allows users to design, analyze, and modify data structures. IDD can be used in a batch or interactive mode.

## INTEL SYSTEMS CORPORATION

- Users of SYSTEM 2000 have the option of the Multiple Systems Coupling (MSC) product that supports fully coordinated, channel-to-channel communications between two or more processors of the same IBM series and models. It is designed for multiple IBM 370, 30XX, and 4300 series environments. With MSC, several processors can execute applications and transactions and concurrently access and share data bases managed by SYSTEM 2000 in another processor.
- Hardware and software is integrated by using Intel's FAST-3805 semiconductor disk in the Data Base Assist Processor (DBAP). DBAP is a software enhancement to the Intel FAST-3800 series that improves the performance of SYSTEM 2000 I/O as related to standard rotational disk drives. DBAP is useful in large data processing shops that have lengthy SYSTEM 2000 batch jobs or high activity SYSTEM 2000 on-line jobs. With DBAP, users have experienced a 30% to 50% reduction in processing time.
  - The FAST-3805 semiconductor disk is a data storage subsystem that offers up to 72 million bytes of storage and an access time of less than 400 microseconds. High usage data files, as well as pointer tables, are placed on 3805 type memory. In this way, rapid access is provided to files that are used frequently as well as to pointer files.
- In March 1982 Intel announced the Intel data base processor, the iDBP/440. The iDBP, which is intended as an OEM product, provides the basis for a data base system. It supports structured and unstructured data and is offered in four levels of hardware integration. Complete software is included in each level. This product, a relational data base manager, is microcomputer-based and evidences the synergy of the Intel/MRI merger.
- In late 1982 Intel introduced the Intel Database Information System, or IDIS 86/735, a turnkey system designed to enable corporate managers without extensive technical backgrounds to retrieve and analyze data locally from their companies' central mainframe computers.
  - IDIS 86/735 consists of a desktop computer terminal powered by Intel's 8086 microprocessor and software (an extension of SYSTEM 2000) to retrieve and analyze stores of information.
  - The product, which sells for \$34,995, is aimed at managers in corporate planning, engineering, personnel, and accounting departments, as well as inventory centers and hospitals.
  - Deliveries are scheduled for the first quarter of 1983.

## INDUSTRY MARKETS

- Revenues are derived from a variety of vertical markets including services, manufacturing, engineering, education, federal government, financial, utility, transportation, energy, and health.

## INTEL SYSTEMS CORPORATION

### GEOGRAPHIC MARKETS

- Approximately 30% of Intel Systems' revenue is derived from sales in Canada and Europe. The remainder is generated from within the U.S.
  - Overseas sales offices and/or distributors are located throughout Western Europe, Korea, Japan, Australia, and Mexico.
- Sales operations are organized on a divisional basis and are coordinated out of the Phoenix office.
  - Sales offices are located in Phoenix (AZ); Burlingame, El Segundo, Sacramento, San Diego, Santa Ana, Santa Clara, and Tarzana (CA); Denver (CO); Danbury (CT); Ft. Lauderdale and Maitland (FL); Norcross (GA); Rolling Meadows (IL); Indianapolis (IN); Cedar Rapids (IA); Overland Park (KS); Hanover and Silver Spring (MD); Chelmsford and Wellesley Hills (MA); Southfield (MI); Edina (MN); Earth City (MO); Edison (NJ); Hauppauge, Poughkeepsie, and Rochester (NY); Charlotte and Greensboro (NC); Cleveland and Dayton (OH); Tulsa (OK); Beaverton (OR); Ft. Washington and Pittsburgh (PA); Austin, Dallas, and Houston (TX); Salt Lake City (UT); Falls Church and Richmond (VA); Bellevue (WA); and Brookfield (WI).

### COMPUTER HARDWARE AND SOFTWARE

- Intel Systems' data center is located in Austin. It contains one IBM 4341 operating under VM/CMS, DOS/VSE, VSI, and MVS.



*Turny  
Speiser  
Pind. Mito  
Mal*

*Bob  
Hines*

## COMPANY HIGHLIGHT

**INTEL SYSTEMS CORPORATION**  
12675 Research Boulevard  
P.O. Box 9968  
Austin, TX 78766  
(512) 258-5171

Kent Ochel, President and General  
Manager, Austin Operations  
Subsidiary of Intel Corporation  
Total Employees: 330  
Total Revenues 12/31/79:  
\$11.1 Million

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### THE COMPANY

- Intel Systems Corporation, formerly MRI Systems Corporation, was founded in 1965 by Messrs. Robert L. Brueck and Alfred A. King as an operations research and consulting firm. It was incorporated, and known until 1968, as Management Research International. Thereafter, it became MRI Systems and functioned as a closely held company principally engaged in the development, marketing, licensing and maintenance of generalized data base systems software products, in particular, SYSTEM 2000®. In February 1979, MRI became a subsidiary of Intel Corporation operating within the Commercial Systems Division, which is headquartered in Phoenix (AZ).
- The combination of Intel's semiconductor expertise and MRI's experience in system design and development technology was a major determinant in completing the merger. It was recognized that the logical extension of data base management products would involve the integration of hardware and software in storage management functions. Such a union has culminated in the introduction of Intel's new family of products for Information Resource Management. Included in the line are a fully integrated data dictionary, an enhanced data base management system, distributed data base facilities, data communications options and data base hardware.
- MRI Systems Corporation was purchased for 100,000 shares of Intel stock. The value as of February 26, 1979, was \$57 per share. The transaction was accounted for as a pooling of interests.
- Intel Systems 1979 revenues increased 31% (to \$11.1 million) over 1978's revenue of \$8.5 million.
- The Commercial Systems Division of Intel Corporation consists of four functions: software, hardware, systems sales and product services.
- Intel Systems Corporation, located in Austin (TX), is responsible for the division's software capabilities in the form of advanced data base management systems and related applications consulting.

## COMPANY HIGHLIGHT/INTEL SYSTEMS CORPORATION

- Hardware activities include the development of FAST-3805, Intel's semiconductor disk, and IN-7700, the company's Universal add-on memory.
- Systems sales provide worldwide sales, consulting and education for the complete Commercial Systems Division's product line. The software licensee operations of the SYSTEM 2000 were integrated into this group in 1980 in order to provide support for remote computing services vendors.
- Product services offer field service and technical support to the division's products.
- Intel Systems Corporation, with related sales, consulting and educational personnel, has a total of 330 employees.
- Major competitors of the company include IBM, Cullinane Corporation and Software ag of North America.

### KEY PRODUCTS AND SERVICES

- Intel Systems Corporation derives 75% of its revenues from software products and the balance from applications consulting and education. This ratio is expected to change in favor of its data base products.
- The company's reputation has been built upon the acceptance of its primary product, SYSTEM 2000, a generalized data base management system. SYSTEM 2000 has been installed in over 350 computer installations. Additionally, it is offered on a service basis from one of the company's 32 licensees. Early in 1980, the Commercial Systems Division announced major enhancements to SYSTEM 2000 and is now marketing it as part of a Total Information Resource Management product family. To herald these changes, it has been renamed SYSTEM 2000/80.
  - SYSTEM 2000/80 runs on IBM (including the 4300 series), Control Data, Univac and IBM-compatible mainframes under more than 30 operating systems. Transaction processing for on-line systems and large-volume batch access are supported. Interfaces provided include: INTER-COMM, SHADOW II, TSO and TONE. Coordinated DB/DC is supplied for CICS/VS. SYSTEM 2000/80 features three languages: Plex, QUEST and Report Writer.
    - Plex is Intel's Programming Language Extension to Cobol, Fortran, PL/I and Assembler. It is designed for high-volume, production-oriented environments.
    - QUEST is designed for end user browsing of data base files and is a free-form, natural language system that has search, display and update capabilities.

- Report Writer allows both end users and programmers to describe multiple reports with a free-form language and to generate reports against all or selected portions of a data base.
- The newly announced Information Resource Management product family is modular in structure. All of the options are scheduled for release by the end of 1980 and will be interfaced with SYSTEM 2000/80.
- The Integrated Data Dictionary (IDD) is an enhanced version of Control 2000 that was introduced in 1977. It permits users to add, delete or change data items, records and definitions even after the data base is in production. Its define/control facility for the implementation of data bases allows users to design, analyze and modify data structures. IDD can be used in a batch or interactive mode.
- Intel's product line now includes TAPS/80, which is used for on-line applications development. TAPS/80 provides complete portability between batch and teleprocessing environments and allows applications to be developed using batch coding techniques that are independent of the data communications facility.
- Users of the Information Resource Management family have the option of the Multiple Systems Coupling product (MSC) that supports fully coordinated, channel-to-channel communications between two or more processors. It is designed for multiple IBM 370, 30XX and 4300 series environments. With MSC, several processors can execute applications and transactions and concurrently access and share data bases managed by SYSTEM 2000/80 in another processor.
- Hardware and software is integrated by Intel's FAST-3805 semiconductor disk and the IN-7700 Universal add-on memory.
  - FAST-3805 semiconductor disk is a data storage subsystem that offers up to 72 million bytes of storage and an access time of less than four hundred microseconds. Developments are underway to place high usage data files, as well as the pointer tables, on 3805 type memory. In this way, rapid access would be provided to those files that are used frequently as well as to the pointer files. The data base processor option will be available early in 1981.
- A typical Information Resource Management configuration ranges from \$80,000 to \$100,000, depending on the modules selected.
- Intel Systems has also developed the Load Analysis and Market Planning (LAMP) software for the electric utilities.
  - LAMP uses the company's data base management technology to meet the requirements of the Public Utilities Regulatory Policies Act. Section 133 of the act requires power utilities to report the kilowatt hours of electricity used on an hour-by-hour basis and to perform different types of analysis on power consumption.

## COMPANY HIGHLIGHT/INTEL SYSTEMS CORPORATION

- It features an English-like query language, operates in either an interactive or batch mode, and runs under OS/VS on IBM 360/370/30XX or 4300 series mainframes.
- Intel Systems Corporation derives 25% of its revenues from applications consulting, education, systems evaluation, design and implementation, and custom programming in support of SYSTEM 2000/80.

### INDUSTRY MARKETS

- In 1979, an estimated 39% of the company's revenues was derived from the federal government. The balance was drawn in order of significance from the services industry, process manufacturing and education.

### GEOGRAPHIC MARKETS

- Approximately 20% of Intel Systems Corporation's revenues is derived from sales in Canada and Europe. The remainder is generated within the U.S.
  - Overseas sales offices are located in Belgium, Germany, France, Holland and the United Kingdom.
- Sales operations are organized on a divisional basis and are coordinated out of the Phoenix office.
  - Regional sales offices are located in Washington (DC), Chicago (IL) and Burlingame (CA).

### COMPUTER HARDWARE

- Intel Systems' data center is located in Austin. It contains one IBM 370/158, operating under VM/CMS, DOS/VSE, VSI, MVS.

(Stan Mantell)

Jack Carson  
Vice President & Director of Marketing

#### COMPANY HIGHLIGHT

MICROCOMPUTER DIVISION  
INTEL CORPORATION  
3065 Bowers Avenue  
Santa Clara, California 95051  
(408) ~~246-7501~~  
987-8080

Gordon E. Moore, Corporate President  
Public corporation  
Total employees: 7,500 worldwide\*  
Revenues, fiscal year end 12/76:  
\$230 million\*

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#### COMPANY BACKGROUND:

- Intel was incorporated in California in July 1968. It is traded over the counter.
- Intel designs, manufactures, and markets products built around complex electronic functions incorporated into a microcircuit.

#### OVERALL ASSESSMENT:

- In 1971, Intel pioneered the development of the microcomputer and now commands about a 60% share of today's \$100 million microcomputer component and systems market. In working to maintain its share of this market - expected to grow to \$1 billion by 1980 - Intel spent about \$10 million on microprocessor R&D in 1976, probably more than its competition invested cumulatively.
- The microcomputer is the nucleus of many intelligent terminals and some low end business computer systems. Such products will become increasingly more effective competition to the computer services companies as technology provides the means to enable companies to manufacture and market more powerful and versatile products with improved price performance.
- Technical leadership, supported by a financially-strong company (\$75 million equity with no long-term debt) puts Intel in a strong competitive position. Capitalizing upon its technological and product strength in the semiconductor, microprocessor, and memory product lines, Intel has the opportunity to be a key factor in the low end of the market currently served by the minicomputer industry. To companies in the computer services industry, Intel can be either a competitor (applications-oriented microcomputers) or a partner (source of hardware).

#### KEY PRODUCTS AND SERVICES:

- Current revenues are derived from the following product lines:
  - Memory components 70%
  - Microcomputers 15%
  - Wrist watches 10%
  - Memory systems 5%

\*Estimate by INPUT

December/1976  
81.1

INPUT

## COMPANY HIGHLIGHT/MICROCOMPUTER DIVISION - INTEL CORPORATION

- The fastest growing product line in the company, and in the industry, is the "computer-on-a-chip." This minute piece of silicon, the heart of the microcomputer, can currently be purchased for approximately \$25.00 each.
- The Intel SBC 80/10 and 80/20 are single board computers (6 3/4" x 12") built around an 8080A microprocessor chip. This computer includes: memory, communications interface, bus control function interrupts, and other features. Unit prices start at \$500.
- The microcomputer products are supported by Intel's Intellec Micro-computer Development System which is used to develop, debug, and integrate system software. Standard software tools provided include assemblers, editors, debuggers, and a high level language.

APPLICATIONS: Intel microcomputer sales are all OEM. End user applications are varied. Intel microcomputers are used in intelligent terminals, dedicated data systems (POS, traffic control), communications equipment, video games, and in the low price and performance end of the minicomputer small business computer markets.

GEOGRAPHIC MARKETS: Intel sells memory components and products as well as the microcomputer line through the company's direct sales force and international distributors in 25 states and 18 countries.

INDUSTRY MARKETS: The company markets microcomputer systems products to computer mainframe and peripheral manufacturers, system integration houses, terminal manufacturers, and any industry requiring efficient and economic numerical and process control devices incorporated into its product.

*Dropped*  
*1/81*

## COMPANY HIGHLIGHT

### INTELLECTRON INTERNATIONAL, INC.

6711 Valjean Avenue  
Van Nuys, CA 91406  
(213) 988-5670

William C. Clouer, President  
Public Corporation, OTC  
Total employees: 130  
Total revenues, fiscal year end  
12/31/77: \$2,400,000\*

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### THE COMPANY

- Intellectron International, Inc. (III) was incorporated in California in 1968. Since its founding, the firm has provided data processing services to physicians. It now provides services to more than 2000 physicians, dentists, and optometrists.
- Revenues of \$2.4 million in fiscal 1977 showed an increase of 41% over fiscal 1976 revenues of \$1.8 million. Management states that III is profitable.
- Currently, III has approximately 400 stockholders; President Clouer currently owns about 50% of outstanding stock. At one time the company had more than 7,000 stockholders. The stock is inactively traded Over The Counter.
- III is a principal sponsor of a non-profit foundation, the Institute for Medical Practice Management. The Institute provides educational seminars to medical practitioners in such areas as collections, insurance, general office public relations, as well as on minimizing the risk of malpractice suits.

### KEY PRODUCTS AND SERVICES

- III specializes in medical administration services. These are offered primarily through processing and professional services. In fiscal 1977, processing generated the majority of revenues as shown below:

-	Processing	70%
	Batch	63
	Remote batch	7
-	Professional	<u>30</u>
		100%
- At the time of printing, the percentage of revenues generated by software products was unavailable. INPUT estimates that software products generated a negligible portion of fiscal 1977 revenues.

October 1978

## COMPANY HIGHLIGHT/INTELLECTRON INTERNATIONAL, INC.

- Processing revenues were generated by the company's three proprietary systems: Medcobill, TelData, and HMO processing. The first two offer a variety of office and personnel administration services to medical practitioners. The third is a processing service for Health Maintenance Organizations.
  - Medcobill, which generated approximately 50% of total revenues in fiscal 1977, is composed of five modules. Purchased as a package or separately, the modules are:
    - Billing. This includes completing insurance forms for carriers, generating and mailing patient statements, and accounts receivable.
    - Office management. This system produces periodic management reports which permit medical office administrators more effectively to evaluate the efficiency of the practice. The reports offer information including the revenues and costs of medical procedures, frequency of procedures used, and profitability.
    - Preventive medicine. This system tracks and notifies patients of required procedures such as periodic blood tests, Pap smears, other lab tests, and examinations.
    - Audit. This is a personnel auditing system.
    - Collections. This system flags delinquent accounts and produces delinquent account reports. After a user specified time period, delinquent accounts are automatically referred to Phase III, III's licensed collection agency.
  - TelData, which generated approximately 15% of 1977 revenues, is a modified version of Medcobill. It includes the following modules:
    - Billing.
    - Management. This is a less sophisticated system than Medcobill's.
    - Collections. This system produces reports of delinquent accounts but does not do follow-up or provide referral on them.
    - Preventive medicine. Essentially the same system that Medcobill has.
  - Health Maintenance Organization System, which generated approximately 5% of 1977 revenues, is a processing service for prepaid health plans. With one user currently, this system includes:
    - Patient eligibility checking
    - Frequency of procedures used.
- A software package version of Medcobill and Teldata can be purchased for \$150,000. There are five installations currently.



## COMPANY HIGHLIGHT/INTELLECTRON INTERNATIONAL, INC.

- Professional services generated approximately 30% of fiscal 1977 revenues. They consist of consulting services and medical collections. Introduced three to four years ago, professional services are expected to produce a larger share of revenues in the future. The services are provided through the company's three wholly-owned subsidiaries:
  - Practice Advisory Services is essentially a medical accounting firm. It provides advice on prices, how to collect bills, and general accounting and administrative functions.
  - Phase III, a licensed collection agency, specializes in collecting overdue medical accounts.
  - Financial Consultants, a tax and accounting agency for physicians, provides the following services:
    - Payroll processing.
    - Tax processing.
    - Medical practice administration. This may include leasing permanent personnel to the medical practitioner. These employees will administer the business of the medical practice while remaining on III's payroll.

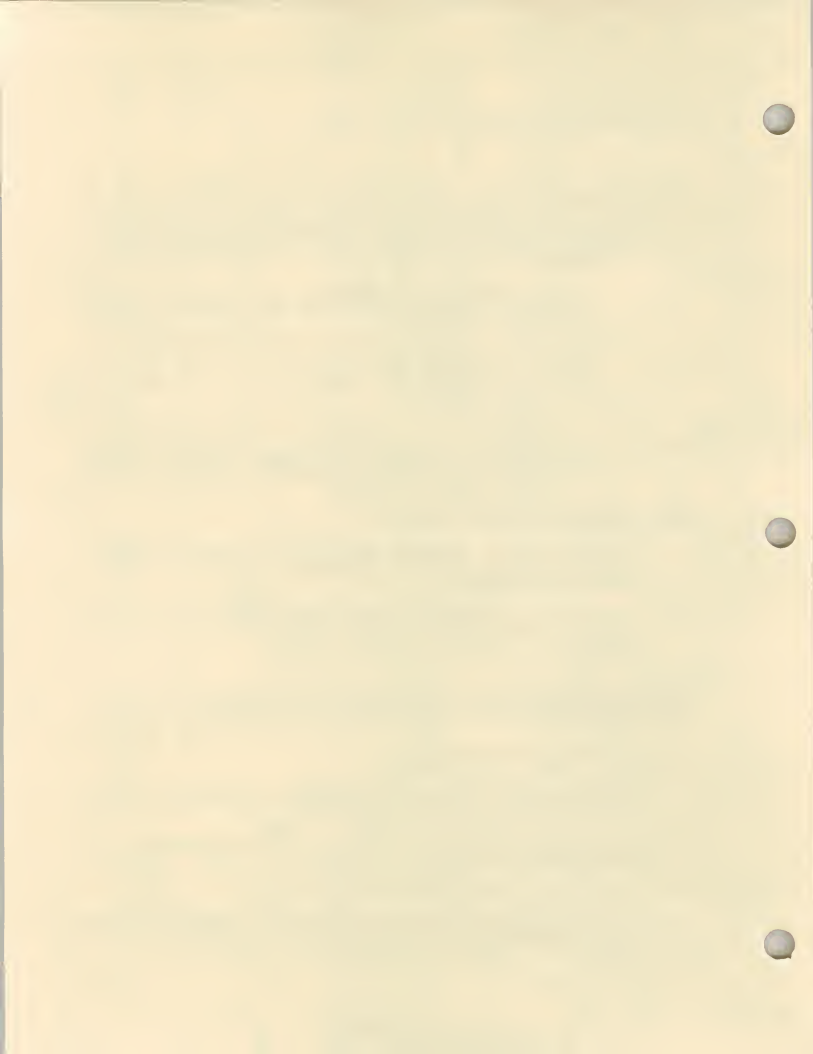
## APPLICATIONS AND INDUSTRY MARKETS

- One hundred percent of processing services are specialty applications targeted at the medical hospital industry. Clients include about 2000 physicians and a few other professionals.
- Users include radiologists, internists, pediatricians, podiatrists, ophthalmologists, dentists, and chiropractors. They are in solo, group, or clinic practice.

**GEOGRAPHIC MARKETS** One hundred percent of revenues are generated in southern California, part of the Pacific region of the U.S. III has a branch office in San Diego.

## COMPUTER HARDWARE AND SOFTWARE

- Processing services are provided by one in-house IBM System/370 Model 50 running under EDOS. It has 512K bytes of memory.
- About ten on-line microcomputer terminals are installed at user sites for remote access to the IBM host.
- A leased line links the San Diego office with Van Nuys.
- III also uses five service bureaus in providing services. Proprietary Computer Systems (Los Angeles) is one of these. It, like the others, is transparent to users.



## COMPANY PROFILE

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### INTELLICORP

1975 El Camino Real West  
Mountain View, CA 94040-2216  
(415) 965-5500

Thomas P. Kehler, Chairman and CEO  
Public Corporation, OTC  
Total Employees: 175 (6/88)  
Total Revenue, Fiscal Year End  
6/30/88: \$20,433,000

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### The Company

IntelliCorp develops, markets, and supports software products used to develop artificial intelligence (AI)-based systems and provides custom systems development, contract research, and consulting professional services. IntelliCorp's leading product, the Knowledge Engineering Environment™ (KEE®), was introduced in 1983 and was the first commercial AI software product.

- IntelliCorp was founded in September 1980 as IntelliGenetics, Inc. by four Stanford University scientists to develop and market software based on AI technology for genetic engineering applications. The company changed its name in June 1984 to reflect a shift to general-purpose AI products and formed a separate division called IntelliGenetics, Inc. to market its genetic engineering software.
- In December 1983, the company made an initial public offering of 1.6 million shares of common stock, generating net proceeds of \$9.6 million. In December 1985, the company sold 1.3 million shares in a second offering. In January 1986, the underwriters sold an additional 277,500 shares on behalf of IntelliCorp. Total net proceeds to the company were approximately \$17.9 million.
- In May 1986, IntelliCorp entered into a joint venture with Amoco Corporation for the development and marketing of AI-based software products for molecular biology.
  - As part of the formation of the venture, IntelliCorp sold a 60% interest in IntelliGenetics to Amoco for \$4 million. The \$3.2 million pretax gain from this sale was recognized in the fourth quarter of fiscal 1986. Amoco holds an option, exercisable in May 1991, to acquire IntelliCorp's remaining nonvoting interest in IntelliGenetics.
  - IntelliGenetics contributed revenue of \$1.9 million and income from operations of \$219,000 to IntelliCorp's fiscal

1986 results. IntelliCorp now accounts for its investment in IntelliGenetics under the cost method.

In July 1987 IntelliCorp announced a realignment of the company, designed to make the company respond more effectively to the needs of its customer base, to improve financial performance, and to refine the company's strategic focus on future product and market objectives. The company's strategies were redefined as follows:

- To expand the availability of its software products for a range of standard hardware platforms, with integration capabilities to conventional programming languages and data bases. At the end of fiscal 1987, about 80% of product sales were derived from versions of the company's software running on non-conventional hardware platforms (LISP machines). Currently, approximately 80% of IntelliCorp's software sales are for standard (Common LISP) hardware, such as Sun Microsystems and IBM RT PC workstations, and DEC VAXstation computers.
- To initiate a vertical marketing program that brings the company's products closer to the end user.
- To seek strategic alliances with major hardware vendors. During fiscal 1988, IntelliCorp entered into marketing/development alliances with IBM and Hewlett Packard.

IntelliCorp's fiscal 1988 revenue reached \$20.43 million, compared to fiscal 1987 revenue of \$20.35 million. Net losses were \$1.5 million, compared to net losses of nearly \$4 million in fiscal 1987. A five-year financial summary follows:

**INTELLICORP  
FIVE-YEAR FINANCIAL SUMMARY**  
(\$ thousands, except per share data)

ITEM	FISCAL YEAR				
	6/88	6/87	6/86	6/85	6/84
Revenue	\$20,433	\$20,352	\$18,597	\$8,685	\$2,076
• Percent increase from previous year	—	9%	114%	318%	255%
Income (loss) before taxes	\$(1,474)	\$(3,987)	\$5,206	\$(626)	\$(1,684)
• Percent increase (decrease) from previous year	63%	(177%)	932%	63%	(131%)
Net income (loss)	\$(1,474)	\$(3,987)	\$4,906	\$(724)	\$(1,684)
• Percent increase (decrease) from previous year	63%	(181%)	778%	57%	(131%)
Earnings (loss) per share	\$(0.21)	\$(0.57)	\$0.75	\$(0.14)	\$(0.41)
• Percent increase (decrease) from previous year	63%	(176%)	636%	66%	(21%)

- (a) Includes a corporate restructuring charge of approximately \$1.7 million.
- (b) Includes a net gain of \$2.9 million (\$0.45 per share) from the sale of a 60% interest in IntelliGenetics to Amoco and a \$1.7 million tax credit resulting from net operating loss carryforwards.

IntelliCorp management attributes the lack of revenue growth from fiscal 1987 to fiscal 1988 to the shifts in the market for its products and services away from specialized hardware environments toward general-purpose hardware.

- The realignment initiated in July 1987 together with a reduction in operating expenses resulted in a revenue increase of 8% and net profit of \$416,000 for the fourth quarter of fiscal 1988 (the three months ending June 30, 1988).
- Revenue for the three months ending September 30, 1988 reached \$5.4 million, a 6% increase over \$5.1 million for the same period in 1987. Net income was \$411,000, compared to net losses of \$649,000 for the same period a year ago.

As of June 30, 1988, IntelliCorp had approximately 175 employees. The company currently has about 200 employees worldwide.

IntelliCorp competitors include Inference Corporation, Cimflex Teknowledge, Aion Corp., and Neuron Data, Inc.

### Key Products and Services

Approximately 79% of IntelliCorp's fiscal 1988 revenue was derived from software product licenses and associated support services. The remaining 21% of revenue was derived from contract research and consulting professional services.

A three-year summary of source of revenue follows:

#### INTELLICORP THREE-YEAR SOURCE OF REVENUE SUMMARY (\$ thousands)

ITEM	FISCAL YEAR					
	6/88		6/87		6/86	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Software and related services	\$16,161	79%	\$16,216	80%	\$15,390	83%
Professional services	4,272	21%	4,136	20%	3,207	17%
<b>TOTAL</b>	<b>\$20,433</b>	<b>100%</b>	<b>\$20,352</b>	<b>100%</b>	<b>\$18,597</b>	<b>100%</b>

IntelliCorp develops, markets, and supports knowledge processing software products for a range of hardware environments. The company has licensed more than 2,600 copies of its software products worldwide.

- The KEE system is an integrated package of AI development tools that provide a programming environment for building knowledge-based systems for commercial and scientific applications. The principal AI technologies represented and integrated by the KEE system are rule-based reasoning, frame-based representation, and object-oriented programming.
- As of June 30, 1988, the company had an installed base of approximately 2,300 KEE systems delivered to over 700 customer sites. IntelliCorp delivered approximately 650 systems during fiscal 1988, compared to 700 systems during fiscal 1987, and more than 600 systems during fiscal 1986.

- KEE is available for the IBM RT PC; the Apollo Domain 3000 and 4000 workstation series; Sun-3 and Sun-4 workstations; Symbolics 3600 computers; Texas Instruments Explorer I, Explorer II, and MicroExplorer workstations; DEC VAXstation; and Compaq DeskPro 386 and Portable 386 computers.
- KEE is licensed for a per-copy fee. The standard price charged for an initial KEE system is \$44,000, consisting of a \$30,000 license fee and \$14,000 for a support package that includes training and one year of software maintenance and support. Volume discounts are available.
- An Intel 80386-based KEE product, released in September 1988, licenses for \$15,000.
- In October 1987, IntelliCorp entered into an agreement with IBM to develop a version of the KEE system for the IBM System/370 series of mainframes. The product, scheduled for availability in December 1988, will be called IBM KEE, will carry the IBM logo, and will be distributed exclusively through IBM. IBM KEE will have an initial price of \$98,000 for a one-time charge license and \$4,900 for a monthly license. Under the agreement, IntelliCorp will receive a royalty on licenses of IBM KEE.
- The SimKit™ package, released in November 1985, adds simulation and modeling capabilities to the KEE system.
  - SimKit licenses for an initial one-year fee of \$21,000, which includes training and support. Volume discounts are available.
  - SimKit is available on Sun-3, Texas Instruments Explorer, and Symbolics workstations.
- The KEE PC-Host Delivery System, available in January 1986, allows customers that have developed a knowledge-based system using the KEE software on a workstation to use a host computer running Common LISP (for example, a DEC VAX) in combination with certain microcomputers (for example IBM PCs and compatibles) to deliver a knowledge-based system to microcomputer users.
- The system licenses for \$7,500 to \$60,000 per copy, depending on the size of the host computer. This price includes one year of support. There is an additional fee for each PC connected to the host.

- KEEconnection™, announced in January 1987, is a bridge for passing information between data bases and knowledge-based systems built with KEE.
  - KEEconnection is available on Sun-3 and Symbolics workstations. The data base to which the workstations are connected may be on either a DEC VAX or a Sun-3 computer.
  - Shipments of KEEconnection began in December 1987. The product licenses for \$15,200 to \$47,000 per copy, which includes training and one year of software support.
- KEE/C Integration Toolkit, introduced in July 1987, integrates programs written in the C language with knowledge-based applications developed using IntelliCorp's LISP-based KEE system. The product enables developers to move easily between C, KEE, and LISP as necessary, depending on which programming language is most appropriate.
  - The product, which began shipping in February 1988, is available on Sun-3 and Sun-4 workstations.
  - The KEE/C Integration Toolkit licenses for \$1,500 per copy. Volume discounts are available.
- J-KEE is a Japanese language version of the KEE system for Symbolics workstations. J-KEE is currently marketed in Japan by CSK Corporation (formerly Computer Services Corporation). IntelliCorp and CSK are currently jointly developing a version of J-KEE for Sun-3 workstations.
- IntelliCorp is developing versions of the KEE system, SimKit, and KEEconnection for Hewlett Packard's HP 9000 series of workstations.

KEEtutor™, introduced in January 1988, is an expert systems software training package that is designed to be used without the supervision of an instructor.

- The package contains two video cassette tapes, training software in either tape or floppy format, and five sets of tutorial modules that cover the basic features of the KEE system.
- KEEtutor is designed for use with KEE 3.1 software and is available on 80386-based microcomputers, Sun Microsystems, Symbolics, Texas Instruments Explorer and MicroExplorer, and



DEC VAXstation computers. Additional releases are planned for IBM RT and HP computers.

- KEEtutor is priced at \$4,000 to \$5,000 per copy, depending on the number of copies of supporting materials ordered by the customer.

IntelliCorp provides, on a contract basis, custom development professional services. The company undertakes these projects to help customers successfully commence development of their applications and to help broaden the capabilities of the KEE system.

- IntelliCorp occasionally licenses unproductized software modules to customers in connection with custom system projects.
- Major custom system projects during fiscal 1988 include:
  - A plant modelling system for electric utilities sponsored by the Electric Power Research Institute
  - A new software tool for the Airland Battle Management System being developed by Lockheed Austin division under sponsorship of the Defense Advanced Research Projects Agency (DARPA) and the U.S. Army
  - A configuration system for a large vehicle manufacturer
  - A scheduling system for a semiconductor firm
  - In February 1988, DARPA awarded IntelliCorp a 15-month, \$600,000 contract to develop two custom knowledge systems for internal administration management related to order processing and financial data tracking.
  - In February 1988, IntelliCorp was awarded a two-year \$750,000 contract cofunded by DARPA and NASA to conduct research into the use of "truth maintenance" software methods in automatic planning.
- IntelliCorp continues to provide research and development services to DARPA for the Expert System Development Tool (ESDT), which is used by the U.S. Department of Defense, related government agencies, and contractors working on Department of Defense and related agency projects.

- ESDT, which includes the core of the KEE system, was delivered in May 1987. Ongoing efforts under the contract include the development of functional additions to ESDT.
- IntelliCorp retains rights to commercialize the ESDT.
- IntelliCorp has realized about \$2.3 million in revenue from this contract through the end of fiscal 1988. Additional funding of approximately \$500,000 is anticipated.

### **Industry Markets**

IntelliCorp's products are marketed to clients in the aerospace, energy, finance, manufacturing, and telecommunications industries and to the federal government. The company's customers are primarily large corporations, government agencies, and universities.

Approximately 14% of fiscal 1988 revenue was derived from the federal government.

IntelliCorp clients include The Defense Advanced Research Projects Agency (DARPA), Northrop Corporation, Minnesota Mining and Manufacturing, Nippon Life, Manufacturers Hanover Corporation, Boeing, Rockwell International's Avionics Group, Electric Power Research Institute, and Illinois Bell.

### **Geographic Markets**

Approximately 75% (\$15.3 million) of IntelliCorp's fiscal 1988 revenue was derived from the U.S. The remaining 25% of revenue was derived from export sales, with 18% (\$3.7 million) derived from Europe and 7% (\$1.4 million) derived from the Far East.

In addition to its headquarters in Mountain View (CA), the company has U.S. sales offices in Boston, Chicago, Dallas, Denver, Philadelphia, New York, and Washington, D.C.

International offices are located in Germany and the U.K.

IntelliCorp's products are distributed by CSK Corporation in Japan, certain distributors in Scandinavia and Israel, and independent sales representatives in France, Italy, and Australia/New Zealand.

IntelliCorp has cooperative marketing agreements with several hardware manufacturers (Symobolics, Texas Instruments, Hewlett Packard, Sun Microsystems, Apollo, DEC, and IBM) that market the KEE system with their hardware.

## COMPANY HIGHLIGHT

INTELLICORP  
707 Laurel Street  
Menlo Park, CA 94025  
(415) 323-8300

Ralph Kromer, President  
Public Company, OTC  
Total Employees: 83  
Total Revenue, Fiscal Year End  
6/30/84: \$2,075,866

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### THE COMPANY

- IntelliCorp markets expert systems software development tools, custom expert system development professional services, and applications software, turnkey systems, and remote computing services for genetic engineering (biotechnology). Expert systems (referred to synonymously as knowledge-based systems) contain specialized knowledge, both factual and heuristic, and are able to reach conclusions by applying the specialized knowledge to problems presented by the user. Programming techniques used to develop these systems are the result of research in the academic field of artificial intelligence (AI).
- IntelliCorp was founded in September 1980 as IntelliGenetics, Inc. by four Stanford University scientists to develop and market software based on AI technology for genetic engineering applications. The founders were Edward Feigenbaum, Peter Freidland, Lawrence Kedes, and Douglas Brutlag. The company changed its name in June 1984 to reflect a shift to general-purpose AI products and formed a separate division called IntelliGenetics, Inc., to market its genetic engineering software.
- In August 1981 IntelliCorp received \$583,000 in venture capital funding. In March 1982 the company received an additional \$1,402,000 in venture capital.
- In November 1983 Computer Services Corporation (CSK), a Japanese software and computer services company, agreed to purchase 166,666 shares of preferred stock in IntelliCorp after receiving an exclusive license to distribute the company's expert systems software development product (KEE) in Japan. In January 1984 the Japanese government approved the licensing agreement and the preferred stock was converted automatically share for share to common stock. March 1984 average common shares outstanding are close to five million; as a result, CSK currently owns less than 3% of IntelliCorp.
- In December 1983 the company made an initial public offering of 1.6 million shares of common stock. IntelliCorp was the first artificial intelligence company to go public. Net proceeds of \$8.5 million were used to finance

future product research and development, computer equipment acquisitions, leasehold improvements, and provide working capital.

- Fiscal 1984 revenue reached \$2.1 million, a 255% increase over the previous fiscal year. Net losses also increased 131% from \$730,000 in fiscal 1983 to \$1.7 million in fiscal 1984. A four-year financial summary follows:

INTELLICORP  
FOUR-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)

ITEM \ FISCAL YEAR	6/84	6/83	6/82	6/81(a)
Revenue	\$ 2,076	\$ 585	\$ 131	-
• Percent increase from previous year	255%	345%	-	-
Income (loss) before taxes	\$ (2,170)	\$ (826)	\$ (644)	\$ (25)
• Percent increase from previous year	163%	28%	-	-
Net income (loss)	\$ (1,684)	\$ (730)	\$ (545)	\$ (25)
• Percent increase from previous year	131%	33%	2,069%	-
Earnings (loss) per share	\$ (0.41)	\$ (0.34)	\$ (0.26)	\$ (0.01)
• Percent increase from previous year	21%	31%	26%	-

- (a) Includes operations of company from inception in September 1980 to June 30, 1981.
- IntelliCorp management attributes the growth in fiscal 1984 revenue primarily to increased product sales, principally BION workstations and KEE system licenses.
  - Net losses reflect the following increased expenditures made during 1984:
    - Research and development expenses reached approximately \$1.3 million in fiscal 1984 (64% of revenue), as compared to \$548,119 in fiscal 1983 (94% of revenue), and \$231,220 in fiscal 1982 (176% of revenue). The major product development effort has been concentrated in the KEE system, genetic engineering and other applications software.

- Marketing, general, and administrative expenses were approximately \$1.8 million in fiscal 1984, as compared to \$472,126 in fiscal 1983, and \$415,685 in fiscal 1982. IntelliCorp significantly expanded its marketing and sales organization during 1984, increasing its need for additional general staff, marketing personnel, advertising, and larger facilities.
- IntelliCorp is currently organized into two operating divisions as follows:
  - The Knowledge Systems Division develops, markets, and supports expert systems software development tools and provides professional services for custom expert systems development.
  - The Biotechnology Division (which has also retained the name IntelliGenetics, Inc.) provides applications software products, remote computing services, and a turnkey system for genetic engineering applications.
- As of June 1984 the company had 83 employees, a 388% increase over a total of 17 employees in June 1983. The company currently has approximately 94 employees.
  - The company currently has approximately 25 knowledge engineers for custom expert systems development.
- IntelliCorp has competitors in three distinct markets:
  - Competitors in the expert systems software development tools market (IntelliCorp's KEE product) include Teknowledge Inc., Inference Corporation, and The Carnegie Group.
  - Competition in the genetic engineering software market is present in the form of low cost access to similar systems at the University of Arizona, University of Minnesota, and Cornell University.
  - In the professional services market, IntelliCorp competes with Teknowledge, specifically in the design of custom knowledge-based expert systems.

## KEY PRODUCTS AND SERVICES

- IntelliCorp's fiscal 1984 revenue was derived approximately as follows:

	<u>Percent of Total</u>
Remote computing services	32%
Software products	26*
Turnkey systems	26*
Professional services	<u>16</u>
	100%

\*INPUT estimate

- In 1983 IntelliCorp introduced the Knowledge Engineering Environment (KEE<sup>TM</sup>), an integrated package of artificial intelligence software development tools that provides a programming environment for building knowledge-based systems for commercial and industrial applications.
  - With the KEE System, a trained user can work with an expert in organizing factual, experimental, and judgmental knowledge in the expert's field of application and can build a computer software system that represents that knowledge. The resulting knowledge-based system can draw inferences, interpret knowledge, test premises, reach conclusions, display the chain of reasoning and otherwise perform or support expert decision-making and problem-solving functions in the chosen application area.
  - KEE is currently available for use on the following LISP machines: the Xerox 1108 workstation, the Symbolics 3600 family of computers, and the LISP Machine, Inc. Lambda workstations.
  - In August 1984 IntelliCorp announced release 2.0 of the KEE system, with availability scheduled for early 1985. This release adds a new query language, enhanced graphics capabilities, a more powerful reasoning system, and extended knowledge representation features, and will be provided to existing customers as a program update.
  - The company charges \$60,000 for a nontransferable license of KEE, which includes training and support services. The system can be purchased without training and support for \$30,000.
  - During fiscal 1984, KEE systems were delivered principally to large corporate customers and government laboratories. Applications by these customers include: design of process control strategies for metals manufacturing, quality assurance analysis in aerospace, diagnosis of machine failure in building environmental systems, communications software planning, and design of special purpose scientific instruments.

- Among IntelliCorp's KEE customers is Ford Aerospace & Communications Corporation and a major public utilities company.
- In August 1984 IntelliCorp entered into a joint marketing agreement with Symbolics, Inc. to market KEE. In November 1984 IntelliCorp also announced it had reached an agreement in principle with Sperry Corporation to market the KEE product.
- Professional services offered by IntelliCorp include education and training services related to software sales and custom expert systems development.
  - IntelliCorp engages, on a contract basis, in the development of knowledge-based systems for clients who desire direct involvement of IntelliCorp's knowledge engineers during implementation of systems using the KEE software. Services may include problem evaluation, prototype development and final system implementation.
  - The company is currently helping a major public utilities company develop end-user products for the marketplace.
- IntelliCorp's first product, introduced in 1982, is an integrated package of biotechnology scientific applications programs specifically developed for recombinant DNA research. There are currently over 600 scientists using this software, which is available via timesharing, as a licensed software product for in-house use, and as part of a turnkey system.
  - The software provides assistance to scientists in planning and managing cloning experiments and in nucleic acid, protein and DNA sequence analysis, comparison, and manipulation. Several of the programs access large data bases developed by NIH and the National Biomedical Research Foundation in the U.S. and the European Molecular Biology Laboratory.
  - The biotechnology software series, however delivered, contains the following nine modules which are not sold separately:
    - CLONER - Construction of restriction maps from enzymatic digests.
    - SEQ - Nucleic acid sequence analysis, comparison, and manipulation.
    - PEP - Amino acid sequence analysis, comparison, and manipulation.
    - QUEST - biological data base management.
    - MAP - Determination of restriction maps from enzymatic digests.
    - GEL - Management of large-scale DNA sequencing projects.
    - SIZER - DNA fragmented length calculation.
    - GENED - Simplified entry of nucleic acid and amino acid sequence data.
    - IFIND - Comparison and alignment of biosequences.

- The company has more than 75 processing services customers accessing nine biotechnology software modules running on a DEC 2060 located at the company's headquarters in Menlo Park (CA). Infogen, a commercial vendor located in Paris, has the only remarketable installation of the biotechnology software. All other installations of the software outside of the company's installation are nontransferable perpetual software license agreements.
- Software licenses to customers who wish to operate the system in-house cost \$43,000 each and run under VMS on the DEC VAX 11/730, under TOPS20 on the DEC 2060, or under UNIX on Sun Microsystems' system. A 15% discount is given to academic or nonprofit organizations and a 15% premium is charged for purchases outside of the U.S.
- IntelliCorp's turnkey system product, the BION<sup>T.M.</sup> Workstation, comes with all nine of the biotechnology software modules on a Sun Microsystems computer operating under UNIX. In December 1984 the company started to unbundle the software from the system. The BION workstation was first introduced in 1983.
- In March 1984 IntelliCorp was awarded a five-year, \$5.6 million contract by the National Institute of Health (NIH) to run BIONET, a national computer resource for research in molecular genetics.
  - The BIONET resource includes IntelliCorp's genetic engineering software, which will be augmented by software contributed by the user group, and provides access to large, national nucleic acid and protein data bases.
  - The software and data bases are made available, through time-sharing on IntelliCorp's mainframe computer, to members of the academic and nonprofit community involved in genetic engineering research. It is expected that a few of the company's academic and nonprofit timeshare customers may transfer to the BIONET resource.
  - The project is staffed by the company scientists, programmers, and consultants and receives policy direction from an independent national advisory committee.
  - Since the \$5.6 million is designed to cover costs of hardware, software, communications, and operations, the cooperative agreement is not expected to result in any material net profit to IntelliCorp.
  - IntelliCorp began operating the BIONET resource in September 1984.



## INDUSTRY MARKETS

- IntelliCorp derived its fiscal 1984 revenue from the following vertical industry market segments:
  - Discrete and process manufacturing.
  - Banking and finance.
  - Utilities.
  - Federal government.
  - Education.
- IntelliCorp's clients include Alcoa, Arthur D. Little, Johnson Controls, Lawrence Livermore Laboratory, Los Alamos National Laboratory, Raytheon, Sperry, SRI International, 3M, and Union Carbide.

## GEOGRAPHIC MARKETS

- IntelliCorp derived its fiscal 1984 revenue from the following geographic markets:

U.S.	93%
Other international	<u>7</u>
	100%
- IntelliCorp's Biotechnology Division, IntelliGenetics, Inc., is located in Palo Alto (CA).
- In December 1984 the company appointed C. Itoh and Company, Ltd. in Tokyo as distributor of its genetic engineering software products in Japan.

## COMPUTER HARDWARE

- IntelliCorp has the following hardware in-house:
  - 1 DEC 2060, running under TOPS/20.
  - 1 DEC VAX 11/750 running under VMS.
  - 6 Symbolics 3600s, running under ZetaLisp.
  - 22 Xerox 1108s, running under InterLisp.
  - 1 Xerox 1100, running under InterLisp.
  - 1 LISP Machines' Lambda, running under ZetaLisp.



## COMPANY PROFILE

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### **INTELLIGENT BUSINESS SYSTEMS, INC.**

185 Plains Road  
Milford, CT 06460  
(203) 878-7960

Frank A. Battaglia, President  
Private Corporation  
Total Employees: 60  
Total Revenue, Fiscal Year End  
12/31/88: \$4,000,000\*

\*INPUT estimate

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### **The Company**

Intelligent Business Systems, Inc., founded in August 1983, provides information retrieval and presentation software systems for use with relational data bases. The company's flagship product, EasyTalk™, enables non-DP business users to create and manipulate relational data bases by using conversational English.

- During its first three years, the company perfected the core EasyTalk technology by working cooperatively with a number of smaller firms in the wholesale distribution industry. An offering which combined Intelligent Business Systems' technology with wholesale distribution accounting application software (EasyTalk I) was marketed on a limited basis during this period. EasyTalk I is no longer marketed, but support is still provided to existing clients.
- Major financial backing by Fortune 100 investors was secured in 1986. A management team was formed to transform Intelligent Business Systems' technology into a product that could be used with any application and could be implemented by the user without any knowledge of the proprietary internal technologies.
- The result was EasyTalk, which was beta-tested in 1988 by four Fortune 100 firms and released nationally in May 1989.
  - Beta-sites included the Hartford Insurance Co., a major pharmaceutical firm, and two major manufacturers, one using EasyTalk to track service calls, and the other for accounting applications.

INPUT estimates Intelligent Business Systems' 1989 revenue will reach \$5 million.

As of April 1989, Intelligent Business Systems had approximately 60 employees, segmented as follows:

Marketing and sales	10
Customer support, development, and computer operations	40
General and administrative	<u>10</u>
	60

Intelligent Business Systems' major competitors include Natural Language Incorporated, AICorp, and Dynamics Research Corporation.

### **Key Products and Services**

Intelligent Business Systems' 1988 revenue was derived from beta site sales for EasyTalk; maintenance fees for the EasyTalk I product; training and documentation provided beyond what is offered with the software; consulting provided on a time-and-materials basis; and development work for OEMs.

EasyTalk combines natural languages and expert systems into one information retrieval system.

- EasyTalk features an integral Database Expert System, which "captures" the knowledge of the data base designer, and uses it to locate and navigate the proper data to satisfy a query.
- EasyTalk also features the Developer Toolkit, a window-driven tool used to "teach" EasyTalk about a specific application. The Developer Toolkit populates the knowledgebase that is used by the Database Expert System to replicate the reasoning procedures that a technician would use to create SQL statements.
- EasyTalk currently runs only with the ORACLE data base on DEC VAX machines. Future plans include expansion to other VAX-based machines and IBM's DB2, as well as UNIX and PC environments.
- Each installation is priced from \$3,600 for the MicroVAX to \$150,000 for the VAX 8400 series. Price includes EasyTalk Query System, Developer Toolkit, documentation, initial training, and maintenance for the first year.

### **Industry Markets**

Intelligent Business Systems markets EasyTalk across industries, including financial services, manufacturing, wholesale, and pharmaceutical.

EasyTalk, at this point an "add-on" to ORACLE only, is targeted to users of that data base.

OEM agreements exist with two major hardware vendors which will add new distribution channels.

### **Geographic Markets**

All of 1988 revenue was derived within the U.S.

Future plans include expansion into the Canadian market by the end of 1989, and the international market by the end of 1990.

Intelligent Business Systems has branch offices in Los Angeles (CA), Dallas (TX), and Iselin (NJ).

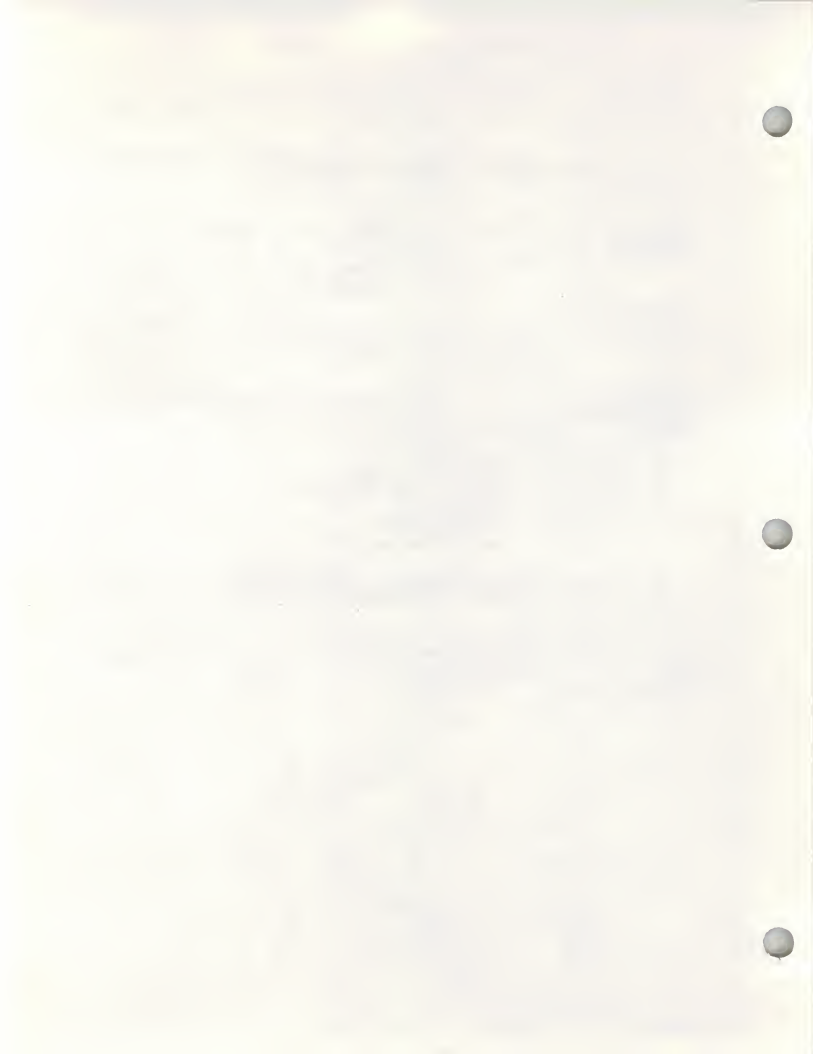
### **Computer Hardware and Software**

Intelligent Business Systems currently has the following hardware installed in Milford (CT):

- 5 clustered MicroVAX IIs
- 16 Vaxstation 2000 workstations
- 2 VAX 3300s
- 2 UNIX-based minicomputers
- Numerous microcomputers

All of the DEC machines run VAX/VMS as well as ORACLE's RDBMS. LISP and C are used for EasyTalk development.

Numerous IBM PS/2s and compatibles, as well as Apple Macintoshes, are used for administrative work, word processing, desktop publishing, and financial planning.



## COMPANY PROFILE

### INTELLIGENT BUSINESS SYSTEMS INC.

246 Church Street  
New Haven, CT 06510  
(203) 785-0813

William Bird, President  
Private Corporation  
Total Employees: 26  
Revenue, Fiscal Year End  
12/31/84: \$1,000,000\*

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### THE COMPANY

- Intelligent Business Systems Inc. (IBS) was founded in August 1983 by William Bird, Dr. Steve Shwartz, and Dr. Roger Schank (of Cognitive Systems Inc.) to market a natural language expert system to wholesalers and distributors. Currently, IBS markets turnkey systems that integrate Amcor Computer Corporation's accounting applications products with EASYTALK I, a natural language system user interface and report generator, on a DEC VAX.
- IBS's initial funding of \$1.4 million was received from Prime Capital (Stratford, CT) and Regional Financial Enterprises (New Canaan, CT) on October 21, 1983. IBS received additional funding of \$750,000 in October 1984.
- IBS's 27 employees are distributed as follows:

Marketing/sales	8
Software services/customer support	5
Systems engineering and application development	11
General and administrative	<u>2</u>
	26

### KEY PRODUCTS AND SERVICES

- All of Intelligent Business System's fiscal 1984 revenue was derived from sales of one product, a turnkey accounting system for wholesale distributors. Six systems have been installed as of December 1984.
- IBS's turnkey system is built around the DEC VAX minicomputer family and packages the following software:
  - EASYTALK I, the company's English natural language interface, was jointly developed with Cognitive Systems Inc. (New Haven, CT).
  - IBS is also licensed to market software products from Amcor Computer Corporation. IBS resells the following Amcor products:

\*INPUT estimate

## INTELLIGENT BUSINESS SYSTEMS INC.

- Accounts Receivable.
  - Accounts Payable.
  - Order Processing and Billing.
  - Inventory Control.
  - Sales Analysis.
  - AMFACS (a financial reporting system).
  - AMBASE (an application development DBMS).
- Although the EASYTALK environment is data base independent, IBS developed its current system using Amcor's data base management system, AMBASE, on the DEC VAX 11/730. The unique feature of EASYTALK that differentiates it from other natural language systems is its understanding of the context of English language queries in the business environment. For example, a request for "sales" data from the marketing manager may imply dollars, while the same request from the warehouse manager may imply units.
- Each installation is priced from \$55,000 to \$150,000 and takes from one to three months on the average to install. Price includes hardware, applications software, a data base management system, EASYTALK, training, and initial maintenance.

### INDUSTRY MARKETS

- All of IBS's fiscal 1984 revenue was derived from the wholesale distribution industry segment.
- IBS customers range in size from \$1 million to \$25 million.
- The company is currently modifying its existing system for use by the discrete manufacturing industry.
- Approximately one-third of IBS's customers replace existing data processing systems, one-third convert from remote computing services, and one-third are automating their businesses for the first time.

### GEOGRAPHIC MARKETS

- All of fiscal 1984 revenue was derived within the U.S.

### COMPUTER HARDWARE AND SOFTWARE

- The company currently has the following hardware installed in New Haven:
  - I VAX 11/785, VMS.
  - I VAX 11/750, VMS.
  - I VAX 11/730, VMS.



Barry Weinman VP  
Dropped 1/81

## COMPANY HIGHLIGHT

IAI, Inc.

### INTERACTIVE APPLICATIONS INC.

505 Hamilton Avenue, Suite 103  
Palo Alto, CA 94301  
(415) 321-7670

James P. Norris

Virginia Weinman, President  
Private corporation, 90% owned  
by officers and employees  
Computer services employees: 35  
Total revenues, fiscal year end  
2/28/78: \$5.5 million

Subs: Barware Inc.  
(acq. 12/29/78)

## THE COMPANY

- Interactive Applications Incorporated (IAI), previously known as Virginia Weinman Associates, was incorporated in 1971 by Virginia Weinman as a contract programming house.
- Since its founding, the company has shifted its emphasis from contract programming services to turnkey systems and a timesharing service oriented to manufacturing applications. Timesharing services are used by clients in lieu of in-house systems as well as by clients waiting for their own turnkey systems to be installed.
- IAI revenues grew at an average annual rate of approximately 66% from \$2 million in fiscal 1976 to \$5.5 million in fiscal 1978.
- New clients have been added solely by word of mouth. IAI has a small active marketing staff but has done virtually no product advertising.

## KEY PRODUCTS AND SERVICES

- Approximately 70% of IAI revenues are generated by turnkey systems sales, 25% by interactive remote computing, and 5% by consulting.
  - Turnkey minicomputer installations utilize the Hewlett-Packard 3000 systems which IAI offers on an OEM basis. IAI supplies materials requirements planning (MRP) applications software. Prices range from \$150,000 to \$320,000. IAI, Hewlett-Packard's largest 3000 OEM, also offers integrated order entry and accounting systems.
- Interactive remote computing services currently have 23 users. The clients utilize the material requirements planning module as well as the order entry and accounting modules.
- Consulting services average one client at a time.

September 1978

## COMPANY HIGHLIGHT/INTERACTIVE APPLICATIONS INC.

**APPLICATIONS** Ninety-six percent of IAI products are manufacturing and general business oriented. The remaining 4% are for education.

**INDUSTRY MARKETS** Ninety-six percent of IAI revenues are derived from the manufacturing industry. The other 4% are generated from state and local government.

**GEOGRAPHIC MARKETS** Ninety percent of IAI revenues come from the Pacific states, 5% from the remainder of the U.S., and 5% from Canada. By 1978, IAI expects the mix to be 50% Pacific, 20% North Central, 10% Northeast, 10% Midwest, and 10% Western states.

## COMPUTER HARDWARE AND SOFTWARE

- IAI uses Hewlett-Packard hardware, which IAI owns, in providing services to its clients:
  - 3 Hewlett-Packard 3000 mainframes (additional HP 3000 on order for 1979)
  - 7 HP disk drives
  - 4 HP tape drives
  - 3 HP line printers

COMPANY HIGHLIGHT

INTERACTIVE DATA CORPORATION  
486 Totten Pond Road  
Waltham, Massachusetts 02154  
(617) 890-1234

*John J. McElroy*  
~~Jack A. Arnow~~ President  
Wholly owned subsidiary of  
Chase Manhattan Bank, N.A.  
Total company and computer services  
sales as of FY ending 12/75:  
\$12,000,000 *Est. 12/76: \$15.6m*

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NUMBER OF EMPLOYEES engaged in computer services: over 300

KEY PRODUCTS/SERVICES: IDC provides remote computing services, which account for 80% of sales and software "data" products which represent 15% of sales. Software (professional) services constitute the remaining 5% of sales. IDC regards itself to be a data utility. Specific products marketed include:

- CPS, Corporate Planning Services: provides financial and statistical capability for such financial functions as discounted cash flow, return on investment, and economic analyses. The Chase Econometric Data Base can be accessed through CPS.
- ANALYTICS: a financial service which for some 4000 New York Stock Exchange, American Stock Exchange and Over-The-Counter companies provides a data base of financial information. Data bases that can be accessed include Lionel D. Edie, Compustat and Value Line.
- XPORT: a portfolio system which can be used for acquisition and investment analysis and pricing bonds. It consists of 100 or so "canned programs" for special applications.

Proprietary computer languages include XDMS, for data management and XSIM for modeling. Additional languages are COBOL, BASIC, FORTRAN and PL-1.

APPLICATIONS: Applications are data base oriented and used primarily for business and financial analyses. They include:

- Corporate Planning Service
  - economic modeling
  - discounted cash flow
  - return on investment
- ANALYTICS: for investment decision making
  - acquisition analysis
  - investment analysis

Information available through data bases includes:

- balance sheet information
- income statements
- company ratios for 1800 industrial firms/100 utilities
- quarterly financial results

## COMPANY HIGHLIGHT/INTERACTIVE DATA CORPORATION

- daily price and volume
- stock split items
- New York Stock Exchange index
- American Stock Exchange index
- Dow Jones Industrial index
- Dow Jones Rails index
- Standard and Poor's 425 index

INDUSTRY MARKETS: Banking and financial institutions account for 70% of IDC's annual sales, manufacturing for 20%, and utilities and insurance 5% each.

GEOGRAPHIC MARKETS: Customers are concentrated in the following U.S. financial and metropolitan areas, and IDC has a branch office in each, in addition to its home office in Waltham, Massachusetts.

- |                           |                                    |
|---------------------------|------------------------------------|
| • Boston, Massachusetts   | • Minneapolis, Minnesota           |
| • Chicago, Illinois       | • New York, New York               |
| • Cleveland, Ohio         | • Philadelphia, Pennsylvania       |
| • Detroit, Michigan       | • San Francisco, California        |
| • Hartford, Connecticut   | • Washington, District of Columbia |
| • Los Angeles, California |                                    |

IDC has an office in London, England as well, however, Europe accounts for less than 2% of sales.

### COMPUTER HARDWARE AND SOFTWARE:

- |   |             |                     |
|---|-------------|---------------------|
| 1 | IBM 370/168 | customized software |
| 1 | IBM 370/135 | DOS                 |
| 2 | DEC PDP-11s |                     |

OVERALL ASSESSMENT AND TRENDS: IDC was formed in 1968 when the Interactive Data Services Division of White, Weld & Company merged with Computer Communications Center. President Jack Arnow was the founder and President of Computer Communications Center. Joseph J. Gal, Chairman of the Board, was formerly a partner with White & Weld. IDC has acquired Financial Transaction Services, which markets software services for processing transfer of overseas funds. IDC is a very low profile company but from all appearances sales should increase at least 20% per year, and faster if IDC makes additional acquisitions, which are enabled by the strong financial backing provided by Chase Manhattan Bank.

*John Longpule*  
*Barry Weinman*, VP Mktg.  
*Allen K. Best*  
VP

#### COMPANY HIGHLIGHT

INTERACTIVE APPLICATIONS INCORPORATED  
505 Hamilton Avenue, Suite 103  
Palo Alto, CA 94301  
(415) 321-7670

*James P. Morris*  
Virginia Weinman, President, \*  
Private corporation, 90% owned  
by officers and employees  
Computer services employees: 17  
Total revenues, fiscal year end  
2/76: \$1.5 million range

*Subsidiary of Boole & Babbage*  
*Aug. 12/27/78*

#### COMPANY BACKGROUND:

- Interactive Applications Incorporated (IAI), previously known as Virginia Weinman Associates, was incorporated in 1971 by Virginia Weinman as a contract programming house.
- Since its founding, IAI has begun offering turnkey minicomputer packages for manufacturing and general business applications in addition to timesharing services and contract programming.

#### OVERALL ASSESSMENT AND TRENDS:

- Although IAI entered the turnkey business only one year ago, turnkey systems already account for 50% of IAI revenues. However, this 50% of revenues is generated by only 9% of its clients.
- The company is currently shifting its emphasis from contract programming services to turnkey systems and a timesharing service oriented to manufacturing applications. The dedication to specialized applications will require that IAI acquire additional expertise in its selected market. Timesharing services are used by clients in lieu of in-house systems as well as by clients waiting for their own turnkey systems to be installed.
- Although the company has grown 300% in the last five years, the new clients have been added solely by word of mouth. IAI does not have an active marketing staff and has done virtually no product advertising. Future growth will depend on the company's ability to build a successful marketing force.

#### KEY PRODUCTS AND SERVICES:

- IAI products and services in order of revenues are:
  - Turnkey minicomputer installations, representing 50% of revenues and 4 clients. IAI OEMs the Hewlett-Packard 2000 and 3000 systems to its customers and supplies materials requirements planning (MRP) applications software. Prices range from ~~\$150,000~~ *3 100,000* to \$320,000.

December/1976

49.1

INPUT

\* re: Allen K. Best 1/17/77 letter

COMPANY HIGHLIGHT/INTERACTIVE APPLICATIONS INCORPORATED

- The timesharing service generates 30% of revenues and has 36 clients. Twenty-three of the clients utilize the material requirements planning module; the other clients utilize miscellaneous custom programs offered over the IAI timesharing network.
- Contract programming, which generates 15% of revenues, has an average of two to three clients at any one time.
- Consulting generates 5% of revenues and has an average of one client.

APPLICATIONS: Ninety-six percent of IAI products are manufacturing and general business oriented. The remaining 4% are for education.

INDUSTRY MARKETS: Ninety-six percent of IAI revenues are derived from the manufacturing industry. The other 4% are generated from state and local government.

GEOGRAPHIC MARKETS: Ninety percent of IAI revenues come from the Pacific states, 5% from the remainder of the U.S., and 5% from Canada. By 1978, IAI expects the mix to be 50% Pacific, 20% North Central, 10% Northeast, 10% Midwest, and 10% Western states.

COMPUTER HARDWARE AND SOFTWARE:

- IAI uses Hewlett Packard hardware, which IAI owns, in providing services to its clients:
  - 1<sup>\*</sup> 2 Hewlett Packard 2000 mainframes (~~one HP 3000 on order for 1977~~)  
" " 3000
  - 1<sup>5</sup> HP disc drives
  - 3<sup>2</sup> HP tape drives
  - 2 HP line printers
- It has not purchased any software products.

## COMPANY PROFILE

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### **INTERACTIVE DATA CORPORATION**

95 Hayden Avenue  
Lexington, MA 02173-9144  
(617) 863-8100

John Rutherford, Jr., President  
Wholly Owned Subsidiary of Dun &  
Bradstreet Corporation  
Total Employees: 500  
Total Revenue, Fiscal Year End  
12/31/91: \$60,000,000 \*

\*INPUT estimate

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### **The Company**

Interactive Data Corporation provides financial and securities-related electronic information services to investment managers, fund sponsors, investment bankers, brokerages, insurance companies, banks, and corporations.

- The company provides pricing and securities information services for mutual funds, trust accounting, brokerage accounting and other securities accounting operations, as well as in-house securities data base management systems.
- Interactive Data's products and services are available on-line, as distributed data bases to PCs and mainframes, and by computer transmissions and tapes.

Interactive Data was founded in 1968 and acquired by Chase Manhattan Corporation in 1974. In March 1988, Interactive Data was acquired from Chase by Dun & Bradstreet (D&B) for \$140 million.

- D&B is a major provider of business information and services, with nearly 63,000 employees worldwide and 1990 revenue of over \$4.8 billion.
- Interactive Data currently operates as a unit of D&B's Financial Information Services segment.

INPUT estimates Interactive Data's 1991 revenue will be \$60.0 million, compared to \$62.7 million in 1990, and \$72.5 million in 1989. A five-year historical revenue summary follows:

**INTERACTIVE DATA CORPORATION  
FIVE-YEAR REVENUE SUMMARY  
(\$ millions)**

ITEM	FISCAL YEAR				
	1990	1989	1988	1987	1986
Revenue	\$62.7	\$72.5	\$68.4	\$70.0	\$65.0

- The company reported lower revenue and operating income in 1990 primarily as a result of the termination, as anticipated, of certain services previously provided to Interactive Data's former owner, Chase Manhattan.
- Excluding the impact of this termination, revenue and operating income increased slightly, despite difficult market conditions.

Interactive Data has one subsidiary, Interactive Data Services, Inc., headquartered in New York, that markets bulk corporate, government, and municipal securities data in machine-readable form to the financial community for pricing operations and compliance applications.

As of December 1990, Interactive Data had approximately 500 employees. The company currently has approximately 500 employees.

Major competitors include Standard & Poor's, J.J. Kenny, Muller, Telekurs, and Reuters.

### **Key Products and Services**

Virtually 100% of Interactive Data's 1990 revenue was derived from data base information services.

Interactive Data provides securities information services to more than 1,300 clients worldwide.

- Customers include 49 of the top 50 major banks, 41 of the top 50 brokerage firms, 39 of the top 50 insurance companies, 42 of the top 50 money management firms, various mutual funds, and corporations.
- Securities information includes latest pricing and descriptive data on corporate actions and announcements for all types of securities, domestic and international, delivered soon after close-of-market for securities accounting applications, including mutual fund and unit investment trust pricing.



- Data bases include price, descriptive, volume, and other data on corporate equities and options, corporate bonds, U.S. government and agency securities, municipal bonds, asset- and mortgage-backed securities, and other securities, as well as company financial information such as revenues, earnings, and assets.
- Interactive Data covers all major markets and exchanges, from the Adelaide Stock Exchange to the Zurich Stock Exchange, with data on over:
  - 3.1 million securities/commodities (including Interactive Data's own evaluations for over 2.4 million U.S. fixed-income issues)
  - 11,700 companies' earnings estimates
  - 10,300 companies' financial statements
  - 1,700 market indicators
  - 455 money market type/durations
  - 33 foreign exchange rates, plus currency conversion information on 85 currencies
- Price data are available on a real-time/intra-day, closing price, and/or historical basis. Announcement data and descriptive data are the most recent available. Fundamental data are available on both a current and a historical basis.
- Data are available on-line, through CPU-CPU transmission, CPU-PC download, and on tape in a variety of formats, applications, services, and utilities, as well as through custom delivery options.
- Aside from performing its own evaluations for certain security types, Interactive Data also receives the data from public sources and under license agreements from other organizations which collect data.

Interactive Data's products/services are summarized as follows:

*General Pricing Services - Bulk Data:*

General pricing services (bulk) deliver specific categories of global securities data, North American or international, by type and/or exchange.

- Data and services are available to individual companies for their own use. The majority of the data and services are also available through a Third Party Marketing group for redistribution.
- Data are available daily, weekly, monthly, or quarterly, through CPU-CPU transmission or on tape.

Services include:

- IDSI Pricing and Evaluation Services, for North American securities information
- IDSI Announcement Services, including registered bond payment announcements, split and dividend announcements, reorganization announcements, and factor data
- IDSI Descriptive Data Services, for North American securities information used in compliance, investment research, and security master updating
- Securities Information Retrieval System, for custom delivery of global or North American descriptive data for security master updating
- International DataLine, for international close-of-market pricing and descriptive data customized to individual customer requirements
- Value Added Data Service, for custom delivery of asset-back security pricing and related data via complete universe or select file processing, in both standard and custom formats
- MarketPlus, global securities data, applications, and a data base management system that resides on the customer's in-house IBM or DEC VAX computer. Data are updated nightly through CPU-CPU transmission.
- Custom Data, including current and/or historical global data for specific customer needs
- Securities Valuation Directory, a printed subscription of month-end valuations and related data for North American equities, bonds, government and agency securities, options, and futures
- RemotePlus, a data base server interface to global on-line data, accessible for PCs and UNIX workstations. Using PCs, security and data item look-up can be performed from within Microsoft's Excel or Lotus' 1-2-3 spreadsheet software packages.

*General Pricing Services - On-line:*

General pricing services (on-line) provide PC or terminal access to Interactive Data's global securities data and offer data downloading for customer-specified data.

Services/tools include:

- DataSheet, a PC-based system to select, retrieve, report, and store current and historical global securities data
- DATAFEED, a communications interface that downloads global securities data to third-party investment analysis and portfolio management PC software

*Fund Pricing Data and Software:*

Fund pricing offers global data services to help customers manage and value funds and portfolios. Data are available on-line, via CPU-CPU transmission, and CPU-PC download.

Services include:

- Mutual Fund Pricing Services include pricing and evaluation data distributed directly to sponsors of mutual funds and unit investment trusts or via redistribution through custodian banks, trustees, and service bureaus
- FundRun, which supports the NASD 5:30 p.m. (EST) deadline by calculating the net asset value of mutual funds, supplying fund data, and running various asset reports
- FundAudit, an on-line service supporting the mutual fund industry's auditing requirements for price confirmation and price comparison

*Valuation Data and Software:*

Valuation data and software offer global data services to manage and value securities and portfolios. Data are available on-line, via CPU-CPU transmission, or CPU-PC download, and on tape.

Services/tools include:

- DataSheet
- IDSIPORT, for estate evaluation and portfolio and single security pricing

- IDCPRICE, PC-based data retrieval and portfolio valuation software for current and historical North American data

*Specialty Software and Data Services:*

These products and services support customers' needs for unit investment trust software, on-line reorganization announcement data, and on-line or in-house municipal bond evaluations.

*Products/services include:*

- VIDEO Unit Investment Trust Software provides maintenance, processing, data screening, and transmission of unit investment trust reports by and between Interactive Data, sponsors, and trustees. Data are available on-line.
- ReorgData provides customer- and/or date-specific U.S. reorganization announcements on issuers and issues.
- CPORT is a municipal bond data retrieval/evaluation system to create, maintain, and evaluate U.S. municipal bond portfolios.
- MuniLease is an IBM mainframe-based software product for U.S. municipal bond evaluation based on Interactive Data evaluation models.

**Industry Markets**

Interactive Data's revenue is derived primarily from the banking and finance and insurance industries.

Clients include 49 of the top 50 banks, 41 of the top 50 brokerage houses, 39 of the top 50 insurance companies, and 42 of the top 50 money management firms.

**Geographic Markets**

One hundred percent of Interactive Data's 1990 revenue was derived from the U.S.

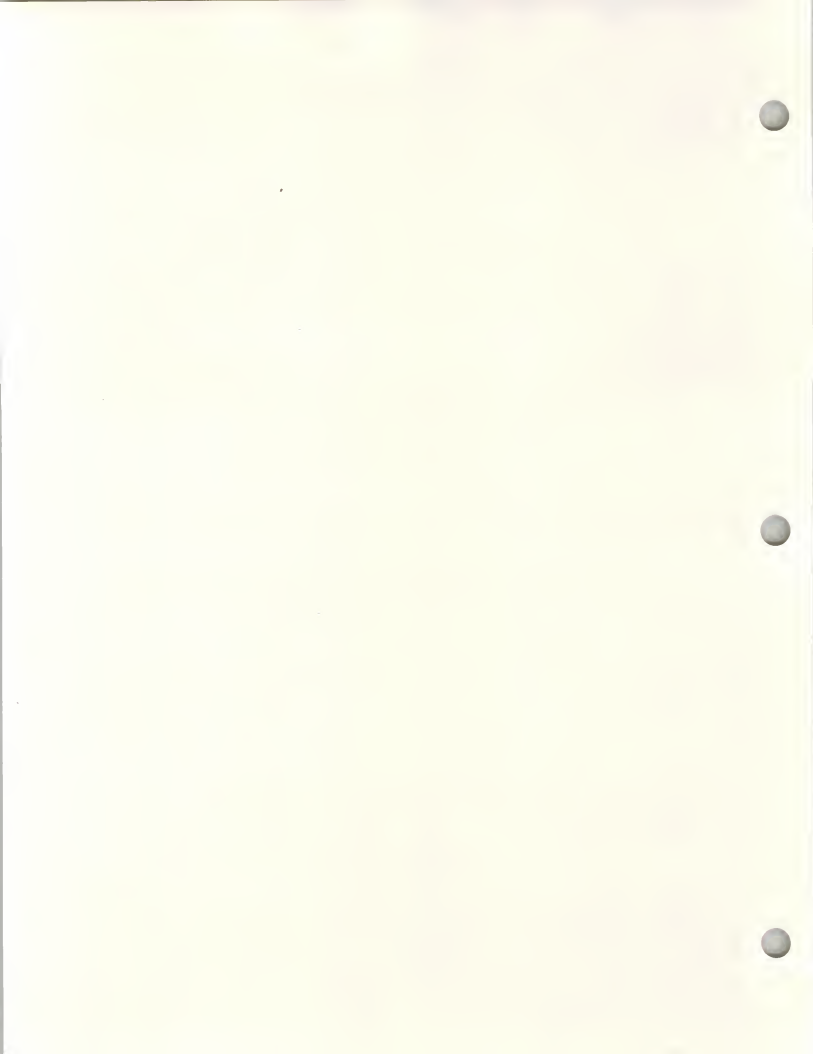
U.S. offices are located in Boston, Chicago, Hartford, Los Angeles, Minneapolis, New York, and Philadelphia.

**Computer Hardware and Software**

Interactive Data has IBM mainframes and Tandem computers installed at its data centers in Waltham (MA) and New York City in support of its services.

Access to Interactive Data's data bases is available via Dunsnet, D&B's international network.

- Dunsnet has dial-up local access throughout the U.S., Europe, and Asia.
- Dunsnet also has X.25 access to SprintNet in the U.S. and various packet switch networks throughout Europe.



*Acquired 3/88 - Dun & Bradstreet*

## COMPANY PROFILE

### INTERACTIVE DATA CORPORATION

95 Hayden Avenue  
Lexington, MA 02173-9144  
(617) 863-8100

John Rutherford, Jr., President  
Subsidiary of The Chase Manhattan  
Bank, N.A.  
Total Employees: 702 (12/86)  
Total Revenue, Fiscal Year End  
12/31/86: \$65,000,000

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### THE COMPANY

- Interactive Data Corporation is a major supplier of securities and financial data bases. The company also provides investment research and portfolio management application software, securities data base management systems, and pricing services for mutual funds and back-office operations.
  - Interactive Data provides its products and services to more than 4,500 clients worldwide, including 42 of the top 50 banks, 41 of the top 50 brokers, 33 of the top 50 investment management firms, and 38 of the top 50 insurance companies.
  - In particular, the company targets specific job functions in certain tiers of the financial services market. These include investment research, portfolio management, and mutual fund pricing operations. Within these categories, Interactive Data addresses quantitative analysis, fundamental analysis, and portfolio accounting applications.
  - While Interactive Data began as a traditional timesharing company, it has implemented a strategy that incorporates microcomputer-mainframe technology into its product offerings. The aggregate data base that Interactive Data compiles, integrates, and distributes represents one of the largest, most comprehensive sources of commercially available securities and financial data. The software tools and applications are used to screen, analyze, display, and distribute the data from Interactive Data's mainframe directly on-line to a micro-computer or dumb terminal, via CPU-to-CPU transmission, or on tape.
- Interactive Data was founded in 1968 and acquired by The Chase Manhattan Bank, N.A. in 1974. It was merged with several of the bank's other acquisitions: Chase Econometrics, Dynamics Associates, and Financial Transaction Services. From 1978 to 1983, the company was known as Chase Econometrics/Interactive Data.

## INTERACTIVE DATA CORPORATION

- Until January 1, 1986, the company operated as four business divisions, each operating as a separate profit center: Securities Products, Chase Econometrics, Treasury Management Services (formerly Financial Transaction Services), and Chase Decision Systems (formerly Dynamics Associates).
  - Chase Decision Systems, which primarily provided software for corporate planning, was eventually absorbed into the Securities Division.
  - In January 1986, Chase Econometrics and Treasury Management Services were divested from Interactive Data and began operating as separate units of the Chase Manhattan Bank.
  - The former Treasury Management Services Division of Interactive Data, headquartered in Lexington (MA), is now known as Chase Access Services and provides worldwide cash management services to banks.
  - In March 1987, Chase Manhattan Bank sold Chase Econometrics to Wharton Economic Forecasting Associates.
- The resulting organization of Interactive Data focuses totally on the securities marketplace.
- 1986 revenue reached \$65 million, compared to 1985 revenue of \$60 million. Interactive Data management anticipates 1987 revenue will reach \$70 million.
- Interactive Data has one subsidiary, Interactive Data Services, Inc., headquartered in New York, that markets bulk corporate, government, and municipal securities data in machine-readable form to the financial community for pricing operations and compliance applications.
- As of December 31, 1986, Interactive Data had approximately 702 employees. The company currently has approximately 699 employees, segmented as follows:

Computer Systems & Operations/Data	321
Domestic Marketing and Sales	133
International	56
Finance	56
Portfolio Services (Product Group)	43
Interactive Data Services, Inc. (IDS)	38
Advanced Products Group	19
Research (Product Group)	18
Human Resources	11
Executive, Legal, and Auditing	4

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## KEY PRODUCTS AND SERVICES

- Interactive Data's 1986 revenue was derived from processing and associated support services and application software products.
- Interactive Data provides securities information services to more than 4,500 clients worldwide. The company provides its products and services to major banks, brokerage firms, insurance companies, mutual funds, money management firms, and corporations.
- Interactive Data's ANALYSTICS securities financial data bases cover 20 years of financial statement information for more than 10,000 domestic and foreign companies, 250 utilities, and 100 phone companies, as well as current and historical prices and descriptive information on more than 60,000 North American securities and some 26,000 securities traded outside North America. Daily evaluations exist for more than 1.7 million municipal bonds.
  - ANALYSTICS also offers commodities, financial futures, foreign exchange data, and market indices.
  - Interactive Data's staff of data specialists collect securities and commodities market information by direct automated input from exchanges, by telephone quotes, and from authoritative printed sources. The data is updated daily, monthly, quarterly, and annually, as soon as the information becomes available. Besides its own pricing information, Interactive Data also obtains data from industry sources such as Standard & Poor's Compustat Services, Extel, Value Line, Lynch, Jones & Ryan, and the major ratings services.
  - A summary of ANALYSTICS data bases is shown in Exhibit A.
- In support of its data base services, Interactive Data's network offerings include applications for portfolio management, investment research, data access, and management. These offerings are shown in Exhibit B.
- Interactive Data offers an integrated portfolio management software environment in which to analyze and measure the impact of investment strategies. Its products keep track of investment selections, update holdings, value portfolios, and calculate rate of return.
  - XPORT is a mainframe portfolio management and performance system which tracks investment activity, values portfolio holdings, calculates rates of return, and reports results.
  - CALXPORT is a series of subroutines enabling the user to access portfolio data from XPORT to create customized applications and reports.

EXHIBIT A

INTERACTIVE DATA CORPORATION  
ANALYTICS DATA BASES

FINANCIAL DATA BASES

- Securities Data Bases
  - Security Master
  - Prices
  - Masterprice
  - Split and Dividend
  - Monthly /Quarterly
  - Call/Sinking
  - Municipal Bond
  - Money Markets
  - Commodities
  - Foreign Exchange
  - International Securities
  - International Bond
  - Mortgage-Backed Securities
- Financial Statement Data Bases
  - Compustat
    - Compustat Industrial
    - Compustat Utility
    - Compustat Business Information
    - Compustat Telecommunications
    - Zacks Earnings Estimates
  - Value Line
    - Value Line Industrial
    - Value Line Financial
    - Value Line Business Line
    - Value Line Small Company
  - Exstat
  - I/B/E/S Summary Statistic

## EXHIBIT B

INTERACTIVE DATA CORPORATION  
NETWORK PROFILE

APPLICATION AREA/PRODUCT NAME
<ul style="list-style-type: none"><li>• Operating Environment<ul style="list-style-type: none"><li>– IBM 3084QX, ES/VM, CMS/VM</li><li>– Amdahl 5870, ES/VM, CMS/VM</li><li>– IBM 4341, VM</li><li>– IBM 4361, VM</li></ul></li><li>• Programming Languages Supported<ul style="list-style-type: none"><li>– Fortran</li><li>– Cobol</li><li>– PL/1</li><li>– VS Basic</li><li>– Assembler</li><li>– XDMS (Proprietary)</li><li>– XSIM (Proprietary)</li></ul></li><li>• Data Bases<ul style="list-style-type: none"><li>– Analytics Securities and Financial Data Bases (See Exhibit A)</li></ul></li><li>• Portfolio Management Applications<ul style="list-style-type: none"><li>– XPORT</li><li>– CALXPORT</li><li>– Micro XPORT</li><li>– International XPORT</li></ul></li><li>• Investment Research Applications<ul style="list-style-type: none"><li>– Equity Research Applications<ul style="list-style-type: none"><li>PC SCREEN/DataSheet/PC ANALYSTX</li><li>ANALYSTX Financial Applications</li><li>XSCAN</li></ul></li><li>– Fixed Income Research<ul style="list-style-type: none"><li>BASIS</li></ul></li><li>– Third-Party Products<ul style="list-style-type: none"><li>BARRA Equity, BARRBOND</li><li>BONDSPEC</li><li>Capital Management Sciences</li></ul></li></ul></li></ul>

APPLICATION AREA/PRODUCT NAME
<ul style="list-style-type: none"><li>• Data Access and Management<ul style="list-style-type: none"><li>– DataWindow</li><li>– Distributed Data Base Environment</li><li>– DATAFEED</li><li>– IDC PRICE/COMPUTRAC</li></ul></li><li>• Pricing Services<ul style="list-style-type: none"><li>– Mutual Funds<ul style="list-style-type: none"><li>FUNDRUN</li></ul></li><li>– Back-Office Operations</li></ul></li><li>• Graphics<ul style="list-style-type: none"><li>– Tell-a-Graf</li><li>– Disspla</li><li>– Graph</li></ul></li><li>• Other<ul style="list-style-type: none"><li>– Terminal Emulator</li><li>– XPRESSIT, Electronic Mail</li></ul></li></ul>

- Micro XPORT is a microcomputer-based transaction entry capability for XPORT which runs on the IBM PC and compatibles and interactively updates the user's XPORT account.
- International XPORT supplements Interactive Data's domestic portfolio management system, XPORT, by tracking and reporting foreign trade activity.
- Interactive Data's products for investment research are divided into Equity Research and Fixed Income. In addition, Interactive Data provides a number of third-party investment research products.
  - Equity Research.
    - PC SCREEN/DataSheet/PC ANALYSTX is a micro-mainframe package for equity research that allows for sorting and screening (PC SCREEN), data retrieval (DataSheet), and ad hoc and preformatted reporting (PC ANALYSTX). All can be downloaded to Lotus spreadsheets.
    - ANALYSTX Financial Applications include a variety of application programs to assist in the analysis and manipulation of ANALYSTICS data. The ANALYSTX series includes a wide selection of reports and graphs based on these data.
    - XSCAN is a mainframe, command-driven screening system that scans any data base for securities, companies, etc. meeting the user's criteria. This environment can screen on both domestic and international data bases.
  - Fixed Income Research.
    - BASIS is a micro-based bond analysis package that provides universe screening and portfolio reporting, produces historical price and yield spread graphs, performs both swap and mortgage-backed securities analysis, and provides descriptive data on over 19,000 corporate and government bonds.
  - Third-Party Products for Investment Research: Products developed and owned by third-party vendors are also available through Interactive Data. These include:
    - BARRA (Barr Rosenberg Associates)--mainframe-based risk models for equities, bonds, and international securities.
    - BONDSPEC (Specialist Software Ltd., of London)--integrated programs that access information for the international and U.S. bond market.

## INTERACTIVE DATA CORPORATION

- Capital Management Sciences (Capital Management Sciences, Inc., of California)--a set of fixed-income analysis applications.
- Data access and management products by Interactive Data include the following:
  - DataWindow (Data Distribution System) is a micro-mainframe data distribution product that allows data base owners to distribute their data using IDC's network and micro-resident analytical software for screening, manipulating, and reporting.
  - Distributed Data Base Environment is an in-house mainframe-based securities data management and distribution system specifically designed to handle large volumes of securities information.
  - DATAFEED is Interactive Data's communications interface that links its data bases to investment, portfolio management, or technical analysis software. Authorized software vendors, selected by Interactive Data, link their microcomputer investment software to Interactive Data's data bases.
  - IDCPRICE/CompuTrac is a communications link to Interactive Data's stock market data available to users of CompuTrac and Computer Asset Management technical analysis software. IDCPRICE is available to IBM and Apple users. Current and historical data are available on stocks, indices, indicators, mutual funds, options, and commodities (IBM users only).
- Interactive Data delivers a range of securities prices for the mutual fund industry.
  - The company prices corporate, government, agency, and municipal bonds and equities, including over-the-counter securities and options. Same-day quotes for foreign securities are also available. Prices can be delivered on-line or sent directly to a customer's mainframe or microcomputer. Software can be tailored to the customer's own format for in-house processing.
  - FUNDRUN is a fund pricing application that supports the daily pricing and portfolio evaluation need of the mutual fund industry to calculate the net asset value of their mutual funds and report them to NASDAQ by 5:15 p.m. (EST) each day.
- Through its subsidiary, Interactive Data Securities, Inc. (IDSI), Interactive Data offers securities pricing services, notification services, fund evaluation services, and estate evaluation services.

## INTERACTIVE DATA CORPORATION

- IDSI provides automated pricing and descriptive data for options, equities, and corporate bonds; government obligations; municipals; and GNMA pools. Additional services include dividend announcements, stockholders' meetings, registered bond interest payments and bonds called for redemption, and estate evaluations.
- IDSI delivers data by computer-computer transmission, magnetic tape, and micro downloading.
- IDSI's corporate and government OID Data Base provides data for computing the tax liability of buyers and sellers of original-issue discount bonds.
- IDSI's Institutional Bond Quote Service provides round-lot trading prices which are a more accurate reflection of the market than the odd-lot prices appearing in newspapers. The service is available on magnetic tape and by direct transmission to mainframe computers.

### INDUSTRY MARKETS

- Interactive Data Corporation's 1986 revenue was derived primarily from the banking and finance and insurance industries.
- Clients include 42 of the top 50 banks, 41 of the top 50 brokers, 33 of the top 50 investment management firms, and 38 of the top 50 insurance companies.

### GEOGRAPHIC MARKETS

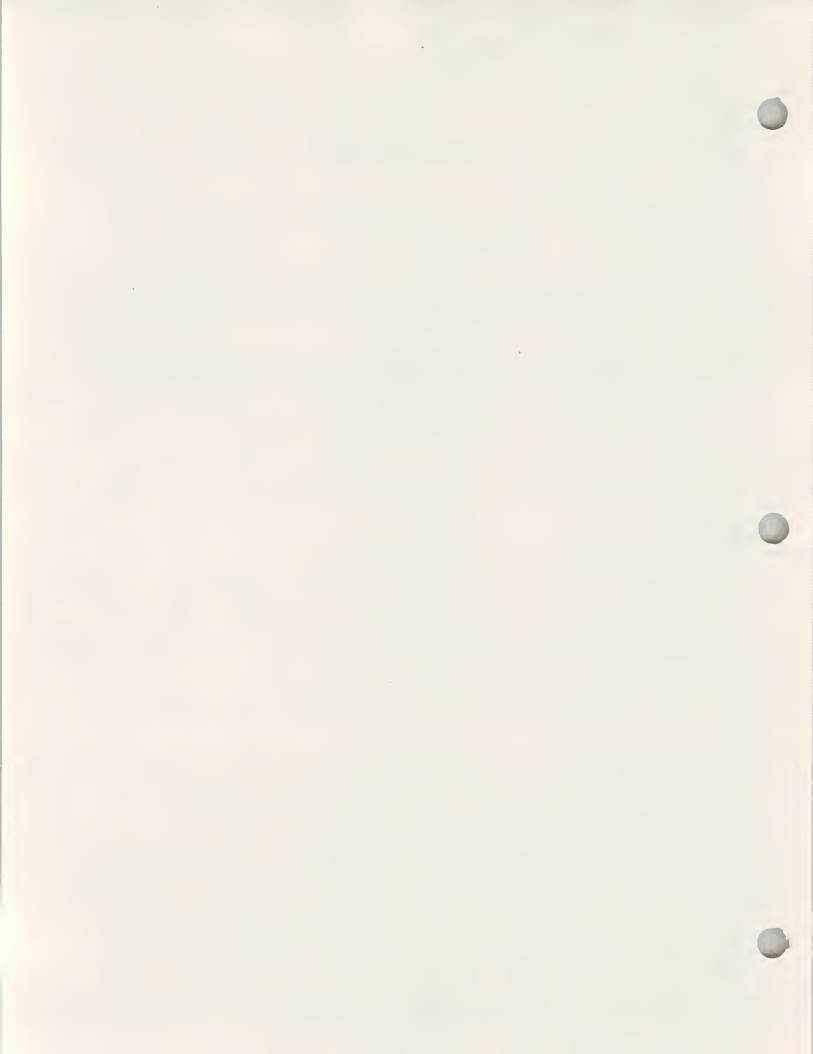
- The company is organized into two marketing divisions--domestic and international.
  - The domestic marketing organization includes eight branch offices located in Boston, Chicago, Hartford, Los Angeles, New York, Philadelphia, and San Francisco.
  - The International Division, headquartered in London, has responsibility for the company's business activity in Europe and the Far East, with offices in London, Frankfurt, Brussels, Toronto, Tokyo, and Hong Kong. In addition to selling products developed in the U.S., the International Division develops products uniquely suited to the international marketplace.

### COMPUTER HARDWARE AND SOFTWARE

- Interactive Data Corporation has the following computers installed at its Waltham and New York City data centers:

## INTERACTIVE DATA CORPORATION

- Waltham (MA).
  - . 1 IBM 3084 QX, ES/VM, CMS/VM.
  - . 1 Amdahl 5870, ES/VM, CMS/VM.
  
- New York City.
  - . 1 IBM 4341, VM
  - . 1 IBM 4361, VM.
  
- The company maintains numerous varied minicomputers and COMTEN Communications processors in 39 cities around the world. There are Data 100 RJE terminals on-line from every office.
  
- Interactive Data has its own international network, which includes three links to Europe and one to Tokyo. Additionally, Interactive Data has X.25 access to Tymnet, Telenet, and Uninet domestically; PSS in Europe; and Datapac in Canada. Access to Interactive Data's network is also available through most European networks via links to PSS.





## COMPANY HIGHLIGHT

### INTERACTIVE DATA CORPORATION

486 Totten Pond Road  
Waltham, MA 02254-9113  
(617) 890-1234

Carl G. Wolf, President  
Interactive Data Corporation  
Subsidiary of The Chase Manhattan  
Bank, N.A.  
Total Employees: 1,203  
Total Revenue, Fiscal Year End  
12/31/83: \$100 million  
Noncaptive Computer Services  
Revenue: \$76 million

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### THE COMPANY

- Interactive Data Corporation and Chase Econometrics were acquisitions made by Chase Manhattan N.A. in 1974 and 1971 respectively. In 1978 Chase organized the two groups into Chase Econometrics/Interactive Data Corporation to operate independently of its other computer services firms. In 1984 Chase Econometrics/Interactive Data was reorganized and renamed Interactive Data Corporation.
- Interactive Data Corporation is a major supplier of economic, financial, and securities data bases and economic forecasting. The company also provides computer-based analytical tools, processing, consulting services, software products, and turnkey systems.
  - Interactive Data has expanded its services with the introduction of a series of microcomputer-based software products permitting data retrieval and manipulation via conventional timesharing or distributed processing. The company also became a value-added dealer for the IBM PC in 1983 and the IBM XT/370 in 1984.
- INPUT estimates Interactive Data Corporation's 1983 revenue was \$100 million, a 3% increase over 1982 revenue of \$97 million.
  - Approximately \$24 million of 1983 revenue was derived from processing services provided to Interactive Data's parent, Chase Manhattan Bank.
  - The company estimates 1984 total revenue will exceed \$108 million.
- Interactive Data Corporation is organized into four business divisions, two marketing divisions, and one subsidiary, each operating as separate profit centers.

## INTERACTIVE DATA CORPORATION

- Business divisions include the following:
  - Chase Econometrics, headquartered in Bala Cynwyd (PA), provides economic data bases, forecasting services, micro-based planning software, and economic consulting services.
  - Chase Decision Systems, headquartered in Cambridge (MA), provides software products for data management and analysis and a turnkey system for corporate and strategic planning applications.
  - Securities Products, headquartered in Waltham (MA), provides financial data base services and associated on-line and micro-based analysis tools for investment research and portfolio management.
  - Treasury Management Services, headquartered in Waltham (MA), provides processing services for cash management, capital and investment planning, and debt management.
- Marketing divisions include the following:
  - The Chase Products and Services Division, headquartered in New York, provides bank-related processing services and associated consulting services for asset/liability portfolio management, custody, and short-term portfolio management. Its principal focus is in providing services to The Chase Manhattan Bank and, through the bank's relationship managers, to outside clients.
  - European Business Division, headquartered in London, has responsibility for the company's business activity in Europe.
- Interactive Data has one subsidiary, Interactive Data Services, Inc., headquartered in New York, that collects corporate, government, and municipal securities information and distributes the data in machine-readable form to the financial community for pricing operations, investment analysis, and compliance applications.
- As of December 31, 1983, Interactive Data had 1,203 employees. The company currently has approximately 1,271 employees, segmented as follows:

Chase Econometrics	264
Chase Decision Systems	61
Securities Products	183
Treasury Management Services	139
European Business	74
Chase Products and Services	26
Interactive Data Services, Inc.	102
General and administrative	<u>422</u>
	1,271

## INTERACTIVE DATA CORPORATION

- Interactive Data's major competitor is Data Resources, Inc. Other competitors include ADP Financial Information Services, Tymshare, Evans Economics, Wharton Econometrics (CISI), CompuServe, D&B Computing, and National Data Corporation.

### KEY PRODUCTS AND SERVICES

- Interactive Data Corporation's 1983 revenue was derived approximately as follows:

	<u>Percent of Total</u>
Processing services	80%
Professional services	4
Software products	4
Other (econometric consulting and subscription fees)	<u>12</u>
	100%

- An overview of applications available on Interactive Data's network is presented in Exhibit A.
- Chase Econometrics provides economic and forecasting services and data bases.
  - Chase Econometrics' data bases contain more than three million weekly, quarterly, and annual time series detailing consumer, demographic, industry, and general economic activity in more than 200 countries. Both historical and forecast data are available, as shown in Exhibit B.
  - Forecasting services available to clients include subscription forecasts, on-line forecast data, economic monitoring, consulting by senior economists, and software tools for various analytical and forecasting applications. Forecasting services cover 60 international economies; the U.S. economy; state and metropolitan area economies; U.S. financial and consumer markets; U.S. industry; and the food and agriculture, transportation, energy, insurance, metals, and telecommunications industries.
  - In July 1984 Chase Econometrics introduced PC PLANR<sup>T.M.</sup>, a software package that integrates access to Chase Econometrics data bases with spreadsheet, graphics, data base management, word processing, and statistical analysis.
    - Under PC PLANR, clients equipped with an IBM PC/XT can access and download Chase Econometrics historical and forecast data and reports, review and manipulate the data, develop

**INTERACTIVE DATA CORPORATION  
NETWORK PROFILE**

APPLICATION AREA/PRODUCT NAME	APPLICATION AREA/PRODUCT NAME
<ul style="list-style-type: none"> <li>● OPERATING ENVIRONMENT               <ul style="list-style-type: none"> <li>— AMDAHL 470 V/8, VM.</li> <li>— IBM 4341, VM.</li> <li>— IBM 370/148, VM</li> </ul> </li> <li>● PROGRAMMING LANGUAGES SUPPORTED               <ul style="list-style-type: none"> <li>— FORTRAN</li> <li>— COBOL</li> <li>— PL/1</li> <li>— PASCAL</li> <li>— ASSEMBLER</li> <li>— BASIC</li> </ul> </li> <li>● DATA MANAGEMENT SOFTWARE               <ul style="list-style-type: none"> <li>— XSIM</li> <li>— XDMS</li> <li>— SQL</li> </ul> </li> <li>● DATA BASES               <ul style="list-style-type: none"> <li>— ECONOMIC DATA BASES (See Exhibit B)</li> <li>— FINANCIAL DATA BASES (See Exhibit C)</li> </ul> </li> <li>● INVESTMENT RESEARCH AND MANAGEMENT               <ul style="list-style-type: none"> <li>— PC SCREEN</li> <li>— DATA SHEET</li> <li>— DATA WINDOW</li> <li>— XPORT</li> <li>— QPORT</li> <li>— INTERNATIONAL XPORT</li> <li>— SHORTERM</li> <li>— SUNPORT</li> <li>— FINANCIAL FUTURES SIMULATOR</li> <li>— ANALYSTX FINANCIAL APPLICATIONS</li> <li>— BONDSPEC/US-BONDSPEC</li> <li>— BARR ROSENBERG ASSOCIATES PRODUCTS                   <ul style="list-style-type: none"> <li>• FUNDAMENTAL RISK MEASUREMENT SERVICE</li> <li>• CONDITIONAL FORECASTING SERVICE</li> <li>• MULTIPLE MANAGER ANALYSIS</li> <li>• BOND VALUATION AND BOND ANALYSIS</li> </ul> </li> <li>— GIFFORD FONG ASSOCIATES PRODUCTS</li> <li>— CAPITAL MANAGEMENT SCIENCES PRODUCTS</li> <li>— INTEGRATED SECURITIES SERVICES (ISS)</li> <li>— CASHPORT</li> <li>— PRICING SERVICES</li> <li>— EURODATA</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● CORPORATE AND STRATEGIC PLANNING               <ul style="list-style-type: none"> <li>— PC PLANR</li> <li>— HORIZON/370</li> <li>— DIMENSIONS</li> <li>— REPORT SERVICES</li> <li>— COMPASS</li> <li>— XSCAN</li> <li>— PACPLAN/POWERPLAN</li> <li>— BANK RISK MANAGEMENT SYSTEM</li> <li>— BANKPLAN 2</li> </ul> </li> <li>● TREASURY MANAGEMENT               <ul style="list-style-type: none"> <li>— TREASURERS' XCHANGE</li> <li>— LEAD BANK REPORTER</li> <li>— INTRA-DAY REPORTER</li> <li>— BANK BALANCE REPORTER</li> <li>— MULTI-BANK REPORTER</li> <li>— DEPOSIT REPORTER</li> <li>— MANAGEMENT INFORMATION REPORTING</li> <li>— REPETITIVE MONEY TRANSFER</li> <li>— FUNDS TRANSFER</li> <li>— DEPOSITORY TRANSFER</li> <li>— ELECTRONIC FUNDS TRANSFER</li> <li>— LETTER OF CREDIT</li> <li>— ANTICIPATORY DRAFTING</li> <li>— NAMESEARCH</li> <li>— MULTILATERAL NETTING</li> <li>— VOICE/TOUCH-TONE DATA ENTRY</li> <li>— BALANCE EXCHANGE</li> <li>— BALANCE CONCENTRATION</li> <li>— PEG BALANCE MONITOR</li> <li>— MODELING, FORECASTING</li> <li>— INTEREST ALLOCATION</li> <li>— SHORTERM</li> <li>— RATE QUOTATION REPORTER</li> </ul> </li> <li>● GRAPHICS               <ul style="list-style-type: none"> <li>— TELL-A-GRAPH</li> <li>— DISSPLA</li> <li>— GRAPH</li> </ul> </li> <li>● OTHER               <ul style="list-style-type: none"> <li>— TERMINAL EMULATOR</li> <li>— XPRESSIT, ELECTRONIC MAIL</li> </ul> </li> </ul>

## CHASE ECONOMETRICS DATA BASES

## ECONOMIC DATA BASES

## HISTORICAL DATA

- AGRICULTURE
  - CANADIAN AGRICULTURE
  - CANADIAN FERTILIZER
  - COUNTY AGRICULTURE
  - INTERNATIONAL FERTILIZER
  - STATE AGRICULTURE
  - STATE FERTILIZER
  - U.S. AGRICULTURE
  - U.S. FERTILIZER
  - WORLD AGRICULTURE SUPPLY AND DISPOSITION
- AUTOMOTIVE
  - CARLINE SPECIFICATIONS
  - WARD'S AUTOINFOBANK
- ENERGY
  - ENERGY
  - INTERNATIONAL ENERGY AGENCY
- FINANCE
  - FOREIGN EXCHANGE
  - GLOBE
  - IMF BALANCE OF PAYMENTS
  - IMF GOVERNMENT FINANCIAL STATISTICS
  - IMF INTERNATIONAL FINANCIAL STATISTICS
  - U.S. FINANCIAL
  - U.S. FLOW OF FUNDS
  - WORLD DEBT TABLES
  - REGIONAL FINANCIAL
  - FDIC & FSLIC
- GENERAL INDUSTRY
  - ANNUAL SURVEY OF MANUFACTURERS
  - CONSUMER PRICE INDEX
  - COUNTY BUSINESS STRUCTURE
  - COUNTY EMPLOYMENT AND WAGES
  - COUNTY PERSONAL INCOME, POPULATION, AND EMPLOYMENT
  - OECD INDICATORS OF INDUSTRIAL ACTIVITY
  - PRODUCER PRICE INDEX
  - SMSA BUSINESS STRUCTURE
  - SMSA EMPLOYMENT
  - STATE BUSINESS STRUCTURE
  - STATE EMPLOYMENT
  - STATE INDUSTRY
- INSURANCE
  - NATIONAL UNDERWRITERS
  - INTERNATIONAL INSURANCE SOLVENCY
- MACROECONOMIC — MULTI-COUNTRY
  - FAR EAST
  - FOREIGN EXCHANGE
  - GLOBE
  - IMF BALANCE OF PAYMENTS
  - IMF INTERNATIONAL FINANCE STATISTICS
  - INTLINE
  - LATIN AMERICA
  - OECD ANNUAL NATIONAL INCOME ACCOUNTS
  - OECD INDICATORS OF INDUSTRIAL ACTIVITY
  - OECD MAIN ECONOMIC INDICATORS
  - OECD QUARTERLY NATIONAL INCOME ACCOUNTS
  - U.N. NATIONAL INCOME ACCOUNTS
  - U.N. DEMOGRAPHICS ACCOUNTS
- MACROECONOMIC — SINGLE COUNTRY
  - AUSTRALIA
  - CANSIM — CANADA
  - FRANCE
  - GERMANY
  - JAPAN — NOMURA RESEARCH INSTITUTE
  - U.K. — CENTRAL STATISTICAL OFFICE
  - U.S. MACROECONOMIC

## ECONOMIC DATA BASES

- METALS
  - INTERNATIONAL LEAD AND ZINC
  - METALS WEEK
  - IRON AND STEEL
- TRADE
  - IMF DIRECTION OF TRADE
  - OECD TRADE SERIES A
- U.S. REGIONAL
  - COUNTY BUILDING PERMITS
  - COUNTY BUSINESS STRUCTURE
  - COUNTY EMPLOYMENT AND WAGES
  - COUNTY PERSONAL INCOME, POPULATION, AND EMPLOYMENT
  - DORIS
  - SUPERSITE
  - SMSA EMPLOYMENT
  - SMSA MACRO
  - SMSA HOUSING, CONSTRUCTION, AND FINANCE
  - SMSA BUILDING PERMITS
  - SMSA BUSINESS STRUCTURE
  - STATE BUSINESS STRUCTURE
  - STATE INDUSTRY
  - STATE MACRO
  - STATE EMPLOYMENT
  - STATE HOUSING, CONSTRUCTION, AND FINANCE
- U.S. NATIONAL
  - ANNUAL SURVEY OF MANUFACTURERS
  - BUSINESS CONDITIONS DIGEST
  - CONFERENCE BOARD
  - CONSUMER PRICE INDEX
  - FINANCIAL
  - FLOW OF FUNDS
  - HOUSEHOLD AGE INCOME
  - NATIONAL INCOME AND PRODUCT ACCOUNTS
  - PRODUCER PRICE INDEX
  - U.S. MACROECONOMIC
- DEMOGRAPHICS
  - DORIS
  - SUPERSITE

## FORECAST DATA

- ALUMINUM
- ALUMINUM MILL
- BASE METALS
- CANADIAN AGRICULTURE FORECAST
- CANADIAN MACROECONOMIC FORECAST
- CONSUMER SPENDING
- EUROPEAN FORECAST
- FAR EAST FORECAST
- FERROALLOYS AND STRATEGIC METALS
- FERTILIZER FORECAST
- FINANCIAL FORECAST
- HOUSEHOLD AGE AND INCOME
- HOUSING, CONSTRUCTION AND FINANCE
- INFLATION PLANNER FORECAST
- INSURANCE FORECAST
- INTERNATIONAL COAL TRADE
- LATIN AMERICA FORECAST
- LONG-TERM INTERINDUSTRY
- MAGNESIUM
- U.S. ENERGY FORECAST
- U.S. FOOD AND AGRICULTURE
- U.S. PASSENGER CAR AND LIGHT TRUCK FORECAST
- WORLD STEEL
- REGIONAL
- U.S. MACRO

econometric and trend projections, and develop detailed planning scenarios.

- PC PLANR components include Graphwriter, Lotus 1-2-3, ESP (a statistical package for econometric model building and trend projections), and MultiMate (for word processing), in addition to proprietary Chase Econometrics software.
- PC PLANR licenses for \$5,000 a year. Chase Econometrics management expects to have 100 PC PLANR users by the end of 1984.
- Chase Econometrics is a value-added dealer for IBM and can supply the IBM PC/XT and PC PLANR as an integrated system to its clients.
- Other recently introduced features and services available from Chase Econometrics include:
  - XPLORE, a data analysis tool used to access, sort, and retrieve cross-sectional data base information using plain English keywords.
  - DIMENSIONS, a cost-effective data access system available to clients subscribing to one Interactive Data forecast service (with timesharing option) or two historical data base services. Clients pay for data on a per-series basis.
  - OFFICECAST, which provides detailed projections of the office automation equipment market and a simulation capability to prepare alternate projections based on the COMTEC marketing research program.
- Chase Decision Systems develops, markets, and supports data management and financial decision support software and turnkey systems.
  - XSIM<sup>®</sup>, introduced in 1972, is an application development package for building decision support systems.
    - XSIM capabilities include data management, data analysis, consolidation, report generation, graphics, financial modeling, econometric analysis techniques, applications programming, and microcomputer-to-mainframe links.
    - XSIM is available to clients on Interactive Data's timesharing network or for in-house installation.
    - XSIM runs on IBM S/370, 43XX, 38XX, and plug-compatible computers under VM/CMS. License fees start at \$50,000. Separate applications modules for software bridges, external

## INTERACTIVE DATA CORPORATION

interfaces, forecasting, and financial modeling (among others) are priced from \$1,000 to \$20,000 each.

- There are currently 20 in-house XSIM systems installed and over 900 timesharing users.
- COMPASS, introduced in 1982, is an integrated software system for budget planning and financial performance analysis.
  - Capabilities include budget preparation and consolidation, ad hoc budget revision, individual financial analysis, actuals tracking, variance analysis and exception reporting, inter-divisional structures, ad hoc reporting, performance guideline checking, graphical analyses, and microcomputer linkage.
  - COMPASS is available to clients on Interactive Data's time-sharing service or for in-house installation. COMPASS runs on IBM S/370, 43XX, 38XX, and plug-compatible computers running under VM/CMS. License fees start at \$80,000, including custom installation.
  - There are currently 12 in-house COMPASS systems installed.
- In July 1984 Chase Decision Systems introduced the Horizon/370, a turnkey forecasting system for corporate users.
  - The Horizon/370 includes an IBM PC XT/370 and XSIM forecasting software.
  - The system permits a range of econometric forecasting and time-series techniques, including multiple regressions and simulations. Data transformation, data display, data management, programming, and statistical functions are also included.
  - The Horizon/370 can operate as a standalone system or interface with a client mainframe or Interactive Data network.
  - The system is priced at \$40,000. There are currently five installations of Horizon/370.
- Chase Products and Services develops, markets, and supports products in support of the banking function. Its principal emphasis is to meet the information needs of The Chase Manhattan Bank and its clients.
  - The Bank Risk Management System (BRMS) is a prompt-driven system that supports CFOs, corporate treasurers, and their staffs in managing their asset/liability portfolios.
  - Securities InfoCash (ISS) is a range of services for a bank to provide to its custodial services customers. Capabilities include safekeeping of



## INTERACTIVE DATA CORPORATION

- securities, accounting for buy/sell orders given to brokers, portfolio evaluation, tracking cash transactions, and direct reporting to the customer.
- CASHPORT is a menu-driven system designed to help banks, financial institutions, and investment advisory firms manage short-term pooled funds.
- The Securities Products Division provides the ANALYSTICS financial data bases, associated processing services, microcomputer software, and turnkey systems for investment research and portfolio management.
  - The ANALYSTICS financial data bases cover more than 10,000 foreign and domestic companies, over 14,000 banks, and 250 utilities. Securities data is available on more than 60,000 North American securities and over 26,000 securities traded outside North America. Daily evaluations exist for more than 1.7 million municipal bonds.
  - ANALYSTICS also offers commodities, financial futures, and foreign exchange data, and current and historical data on investment instruments traded in the major capital markets and on the organizations that issue those instruments.
  - A summary of ANALYSTICS data bases is shown in Exhibit C.
  - ANALYSTX Financial Applications include nearly 100 on-line applications programs for data manipulation and analysis.
  - The Securities Products Division markets SUNPORT, a turnkey portfolio management and recordkeeping system developed by Sunrise Data Systems.
    - SUNPORT, based on a Hewlett-Packard minicomputer, provides instant access to all portfolio information and an on-line "as of" reconstruction of client records.
    - The system is priced from \$60,000. There are currently 15 installations.
  - Microcomputer-based products available include the following:
    - PC SCREEN is a screening package for the IBM PC that allows access to COMPUSTAT and Interactive Data's other financial data bases.
    - DataSheet displays financial statement and pricing data on the user's personal computer in a spreadsheet format.
    - IDCPRICE permits access via an IBM PC to U.S. and Canadian securities data.



EXHIBIT C

SECURITIES PRODUCTS DIVISION  
ANALYSTICS DATA BASES

FINANCIAL DATA BASES

- SECURITIES DATA BASES
  - SECURITY MASTER
  - PRICES
  - MASTERPRICE
  - SPLIT AND DIVIDEND
  - MONTHLY/QUARTERLY
  - CALL/SINKING
  - MUNICIPAL BOND
  - MONEY MARKETS
  - COMMODITIES
  - I/B/E/S SUMMARY STATISTIC
  - FOREIGN EXCHANGE
  - INTERNATIONAL SECURITIES
  - INTERNATIONAL BOND
  - INSTITUTIONAL BOND
  - MORTGAGE-BACKED SECURITIES
- FINANCIAL STATEMENT DATA BASES
  - COMPUSTAT
    - COMPUSTAT INDUSTRIAL
    - COMPUSTAT UTILITY
    - COMPUSTAT BUSINESS INFORMATION
    - COMPUSTAT TELECOMMUNICATIONS
  - VALUE LINE
    - VALUE LINE INDUSTRIAL
    - VALUE LINE FINANCIAL
    - VALUE LINE BUSINESS LINE
  - EXSTAT
  - FDIC

## INTERACTIVE DATA CORPORATION

- Financial Xchange is a spreadsheet loader designed to download data onto Microsoft's Multiplan (IBM PCs) or VisiCorp's VisiCalc (Apple).
- DataWindow is an instant-access, micro-resident screening and analysis system for large financial data bases.
- On-line services available include the following:
  - XPORT, an interactive portfolio management and performance measurement system.
  - QPORT, a system for the quick creation, modification, and deletion of portfolios.
  - International XPORT, an interactive portfolio management and reporting system for internationally diversified portfolios.
  - SHORTERM, a tracking and analysis service for short-term investment positions.
  - Financial Futures Simulator, for the analysis of different hedging strategies and their effectiveness.
  - BONDSPEC and US-BONDSPEC, for access to international and U.S. bond market information.
  - Various third-party products for investment management.
- Interactive Data Services, Inc. (IDSI) provides automated pricing and descriptive data for options, equities and corporate bonds, government obligations, municipals, and GNMA pools. Additional services include: dividend announcements, stockholders' meetings, registered bond interest payments and bonds called for redemption, estate evaluations, and fund evaluations.
  - IDSI's staff of data specialists collects securities and commodities market information by direct automated input from exchanges, by telephone quotes, and from authoritative printed sources.
  - IDSI delivers data by computer-computer transmission, magnetic tape, and micro downloading.
  - In early 1984 IDSI introduced the corporate and government OID Data Base, designed to compute the tax liability of buyers and sellers of original-issue discount bonds.
  - In the Spring of 1984, IDSI introduced the Institutional Bond Quote Service, which provides more accurate round-lot trading prices than the odd-lot prices appearing in newspapers. The service is available on magnetic tape and by direct transmission to mainframe computers.

## INTERACTIVE DATA CORPORATION

- In the Fall of 1984, IDSI introduced Municipal Descriptive Data Services, which provide data required by the Municipal Securities Rule-Making Board's Rules G-12 and G-15. These services are available by CPU-CPU transmission, on magnetic tape, and through C-PORT, an on-line terminal system for the office. Official CUSIP data is supplied to IDSI daily by Standard and Poor's Corporation for distribution as part of this service.
- The Treasury Management Services Division (TMSD) provides interactive and microcomputer-based processing services to support commercial banks in fulfilling the treasury management requirements of their corporate clients.
  - The division's Chase Electronic Banking Services unit has responsibility for product and cash management offerings to the division's largest customer (and parent), the Chase Manhattan Bank.
  - The Integrated Cash Management Services unit is responsible for marketing the division's services to the worldwide bank market. The client base consists of more than 80 major bank clients in the U.S., Europe, and the Far East. Interactive Data management ranks TMSD as one of the four largest U.S. service providers.
  - Treasurers' XCHANGE<sup>TM</sup> is the name used for the division's family of cash management tools for balance reporting, funds transfer, and financial analysis.
  - Treasurers' XCHANGE/Network processing services available to clients fall into five functional categories:
    - Balance and transaction reporting services deliver account status and activity data to corporate treasurers via bank customers.
    - Transaction initiation services communicate instructions and inquiries from treasurers to banks, primarily regarding money movement.
    - Data collection services delivers information on behalf of banks and treasurers in support of reporting and instruction initiation.
    - Analytical processing services provide cash forecasting, exposure modeling, and balance monitoring.
    - Electronic mail services (XPRESSIT).
  - Sold through banks, Treasurers' XCHANGE/Microstation<sup>TM</sup>, introduced in 1982, provides microcomputer data downloading, funds transfer, and processing capabilities for the corporate treasurer.

## INTERACTIVE DATA CORPORATION

- Bank client customers can view their own cash management data together with information provided by Interactive Data Corporation's data bases.
- Treasurers' XCHANGE/Microstation uses an IBM PC/XT. Users may select from a variety of cash management modules for debt and investment portfolios, funds transfer, access and analysis of multi-currency balance reports, entering receipts and disbursements, and complete audit trail maintenance.
- Treasury Management Services is currently developing Treasurers' XCHANGE/Onsite, a turnkey system for in-house cash management based on an IBM minicomputer/mainframe. Availability is scheduled for 1986-87.

### INDUSTRY MARKETS

- Interactive Data Corporation's 1983 noncaptive revenue was derived approximately as follows:

Banking and finance	56%
Manufacturing	15
Insurance	6
Government	4
Other	<u>19</u>
	100%

- Clients include 47 of the top 50 corporations, 45 of the top 50 banks, 32 of the top diversified financials, and 30 of the top 50 insurance companies.

### GEOGRAPHIC MARKETS

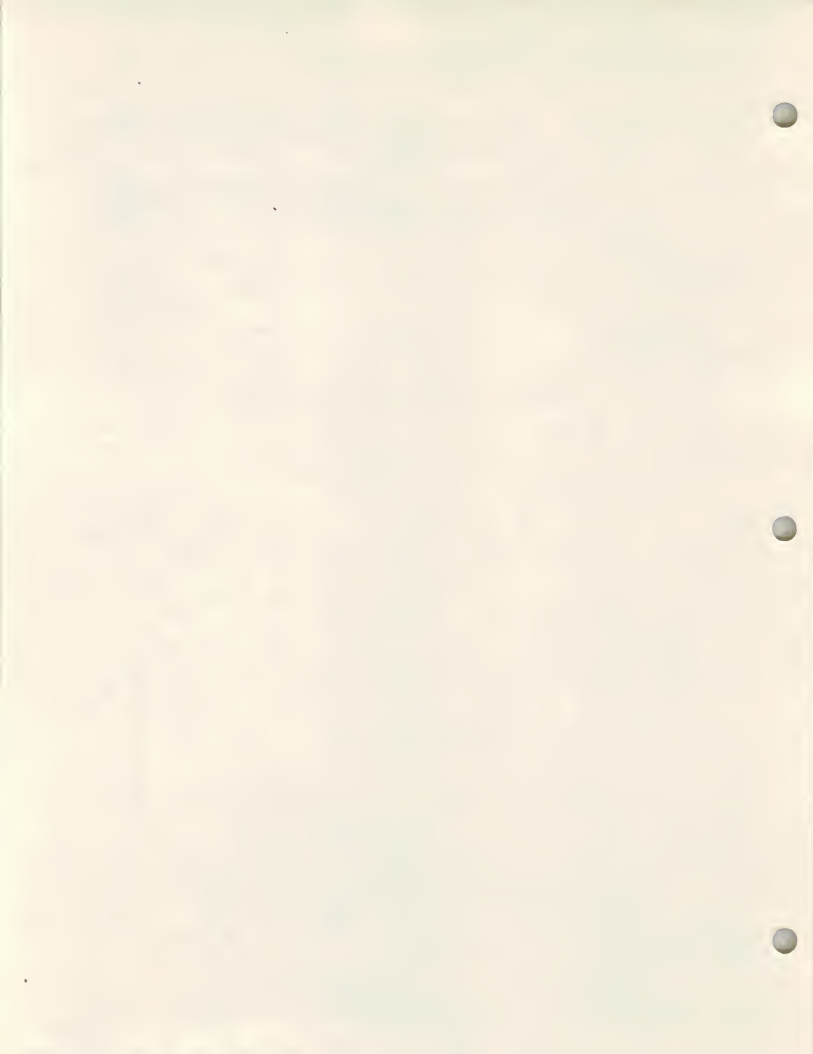
- Approximately 95% of 1983 revenue was derived from the U.S. The remaining 5% was derived from Canada, Belgium, England, West Germany, and Japan.
- U.S. branch offices are located in Atlanta, Boston, Chicago, Cleveland, Detroit, Hartford, Houston, Los Angeles, Minneapolis, New York City, Philadelphia, Pittsburgh, San Francisco, Stamford (CT), Washington (D.C.), and West Orange (NJ).
- International offices are located in Brussels, Frankfurt, London, Milan, Toronto, and Tokyo.

### COMPUTER HARDWARE AND SOFTWARE

- Interactive Data Corporation has three Amdahl 470 V/8s installed at its Waltham data center and an IBM 370/148 installed at its New York City data center. These systems run under a proprietary operating system similar to IBM's VM.

## INTERACTIVE DATA CORPORATION

- The company maintains numerous varied minicomputers and COMTEN Communications processors in 40 cities around the world. There are Data 100 RJE terminals on-line from every office.
- Interactive Data has its own international network, which includes three links to Europe and one to Tokyo. Additionally, Interactive Data has X.25 access to Tymnet, Telenet, and Uninet domestically; PSS and Datamont in Europe; and Datapac in Canada.



Subs of  
Nat'l  
Data

## COMPANY HIGHLIGHT

INTERACTIVE SCIENCES CORP.  
60 Brooks Drive  
Braintree, MA 02184  
(617) 848-2660

Al Jorgensen, President  
Private corporation  
Total employees: 84  
Total revenues fiscal year end  
4/30/78: \$4,000,000\*

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### THE COMPANY

- Interactive Sciences Corp. (ISC) was incorporated in Massachusetts in 1968 where it began as a timesharing computer utility. Since then, it has begun to also provide specialized applications.
- Management projects fiscal 1979 revenues of approximately \$5.5 million. This is an increase of approximately 38% over fiscal 1978 revenues of \$4.0 million\*.
  - Management predicts this growth for fiscal 1979 will result from ISC's new turnkey systems, offering distributed data processing capability.
  - Management states that ISC is profitable.
- Employees are allocated by function as follows:

Marketing and customer programming	51%
Consulting (systems design, programming)	8
Engineering services	15
Operations	18
Administration	8
	<hr/>
	100%

### KEY PRODUCTS AND SERVICES

- Processing services generated the majority of fiscal 1978 revenues as shown below:
  - Processing services
  - Professional services
  - Software products

80%
15
5
<hr/>
100%

\* INPUT estimate

September 1978

## COMPANY HIGHLIGHT/INTERACTIVE SCIENCES CORP.

- Processing services revenues were derived approximately as follows:

- Remote computing	85%
- Facilities management	10
- Batch services	<u>5</u>
	100%
- Remote computing services revenues are generated approximately as follows:

- Interactive	80%
- Remote batch	10
- Data base	<u>10</u>
	100%
- ISC provides general business, scientific and engineering, utility and industry specialty applications. Specialty applications are tailored to the manufacturing industry and include material requirements planning, production scheduling, order demand, product structure, and inventory control.
- ISC management defines its processing services revenues as follows:

- Generic (sale of raw time)	30%
- Applications (program library)	30%
- Software products offered on the remote computing network	30%
- Facilities management	<u>10%</u>
	100%
- The ISC program library contains two proprietary data bases which users may access but not modify.
  - A chemical data base, developed by the National Institutes of Health and the Environmental Protection Agency, provides primary manufacturers with emission standards and other regulatory requirements for their industry. Brook Haven Laboratories has exclusive distribution rights to the data base.
  - ISC also maintains a stock market information data base (SIDS), accessed primarily by brokerage firms, mutual funds, and other financial institutions.
- ISC sells two of its program library packages separately as software products:
  - General business package provides accounts payable, accounts receivable, general ledger and sales analysis applications. There are currently two installations.



## COMPANY HIGHLIGHT/INTERACTIVE SCIENCES CORP.

- Manufacturing planning package provides material requirements planning, product structure, order demand, production scheduling, and inventory control. There are also two installations of this product.
- The charges for licenses to use these products are about \$5,000 per module for the general business packages and \$12,000 per module for the manufacturing package.
- Over 20 users access one or both products through ISC's remote computing network.
- Professional services consist of tailoring packages in the program library to specific customer needs. ISC also performs systems design and other consulting for its remote computing customers.
- In May 1978, ISC began marketing turnkey systems.
  - DEC System 2020, Hewlett-Packard 3000, and Data General Eclipse and CS/40 minicomputers are purchased on an OEM basis.
  - ISC adds its manufacturing and/or general business applications software to the client minis or ISC OEM systems before selling them.
  - Turnkey systems are part of management's plan to actively offer distributive processing. Sales efforts are being concentrated on manufacturing firms with annual revenues between \$10 million and \$50 million. Turnkey systems installed by these firms are expected to function as both standalone minicomputers and remote communications concentrators through terminals to ISC's host computer center. Thus, small manufacturers will have access to both an in-house mini for routine processing and to a large-scale CPU for program development and for running jobs that require large amounts of memory (applications programs, large data bases, and linear programming for example).

## APPLICATIONS

- Processing services revenues were generated by application type as follows for fiscal 1978:

General business	49%
Scientific and engineering	10
Utility	33
Industry specialty	8
	<hr/>
	100%
- A large percentage of industry specialty applications are sold to the manufacturing industry. Specialty applications for manufacturers include production scheduling, bill-of-material, order demand, and product structure.

## COMPUTER HIGHLIGHT/INTERACTIVE SCIENCES CORP.

### INDUSTRY MARKETS

- ISC's revenues for fiscal 1978 were distributed by industry categories as follows:

-	Manufacturing		45%
	Discrete	25	
	Process	20	
-	Utilities		3
-	Banking and finance		15
	Subsectors rank ordered beginning with the largest:		
	Commercial banks		
	Brokerage		
	Other (mutual funds, etc.)		
-	Insurance		7
-	Distribution (retail and wholesale)		8
-	Government		12
	Federal	9	
	State and local	3	
-	Services and other industries		<u>10</u>
			100%

- ISC's fastest growing industry markets are: 1) banking and finance, 2) discrete manufacturing, and 3) process manufacturing.

### GEOGRAPHIC MARKETS

- The Eastern U.S., including the corridor running from New York through Cleveland, Pittsburgh, and Chicago, generated approximately 80% of revenues for fiscal 1978, as shown below:

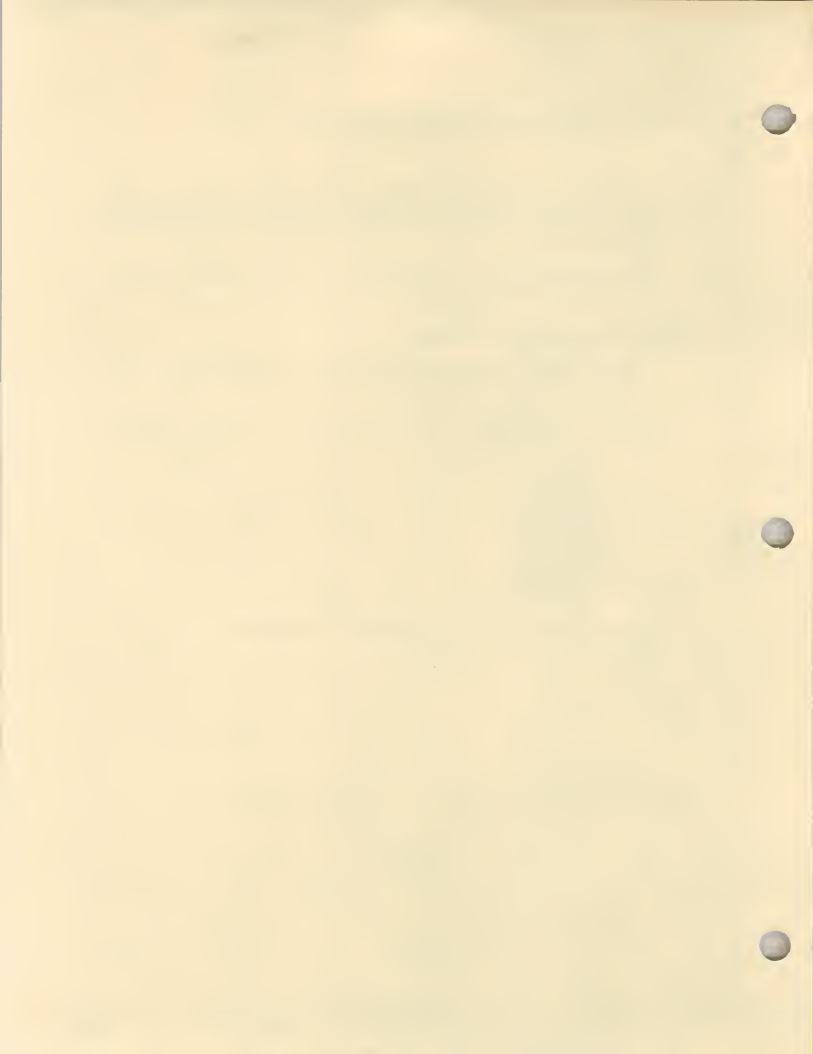
-	New England	20%
-	Middle Atlantic	45
-	East North Central	15
-	South Atlantic	10
-	West South Central	2
-	Mountain	5
-	Pacific	<u>3</u>
		100%

## COMPANY HIGHLIGHT/INTERACTIVE SCIENCES CORP.

- Management plans to expand services into international markets. International marketing efforts are now being directed at U.S. multinational companies and also specific applications for selected industries such as manufacturing.
- Regional offices are located in Boston and Worcester, MA; New York, NY; Pittsburgh, PA; and Washington, D.C.

## COMPUTER HARDWARE AND SOFTWARE

- Five DECSYSTEM-10 CPUs running under TOPS 10 Version 604 are used to perform processing services.
- The data communications network is comprised of multiple point lines which link the following localities:
  - Albany, NY
  - Boston, MA
  - Cape Cod, MA
  - New York, NY
  - Philadelphia, PA
  - Pittsburgh, PA
  - Providence, RI
  - Washington, DC
  - Worcester, MA
- ISC is also linked to the Telenet telecommunications network.



## COMPANY PROFILE

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### **INTERACTIVE SYSTEMS CORPORATION**

2401 Colorado Avenue  
3rd Floor  
Santa Monica, CA 90404  
(213) 453-8649

Dennis Peck, President and CEO  
Wholly-Owned Subsidiary of Eastman Kodak Company  
Total Employees: 400  
Total Revenue, Fiscal Year End  
12/31/90: \$60,000,000\*

\*Company estimate

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### **The Company**

INTERACTIVE Systems Corporation, founded in 1977, develops, markets, and supports UNIX-based systems software products. INTERACTIVE also provides custom software development professional services. The company markets its products and services to OEMs, VARs, and systems integrators.

- INTERACTIVE, which became a wholly-owned subsidiary of Eastman Kodak Company in June 1988, reports to Kodak's Commercial Imaging Group.
- INTERACTIVE's strategic goal is to be the leading supplier of systems software products and services in the UNIX and Open Systems marketplace.
- In January 1991, UNIX Systems Laboratories and Intel named INTERACTIVE a Principal Publisher of UNIX System V Release 4 for Intel 386/486 platforms.

Acquisitions made by INTERACTIVE include the following:

- During 1991, INTERACTIVE purchased rights to VP/ix from Phoenix Technologies.
- In May 1989, INTERACTIVE acquired Lachman Associates, Inc. of Naperville (IL).
  - Lachman Associates, founded in 1975, is known for its networking and telecommunications professional services and software products, which include Network File System (NFS), TCP/IP, and ISDN.
  - Lachman Associates had approximately 170 employees at the time of the acquisition and annual revenue of about \$20 million. The operations of Lachman have been merged into INTERACTIVE.

- The acquisition gave INTERACTIVE increased development capabilities, a significantly expanded customer and prospect base, and a broader range of systems level products and technologies.

INPUT estimates INTERACTIVE's 1990 revenue reached \$60 million, a 20% increase over 1989 revenue of \$50 million.

- INTERACTIVE management attributes the company's growth to accelerated growth in the Intel/UNIX market.
- The company projects that 1991 revenue will reach \$70 million.

INTERACTIVE is currently organized into two divisions as follows:

- The UNIX System Software Products division markets a range of INTERACTIVE-developed packaged UNIX products to OEMs, VARs, distributors, and dealers. This unit, with 150 employees, contributed approximately 50% to INTERACTIVE's 1990 revenue.
- The Services and Technologies division provides technology licensing and custom software development services to the open systems market. This unit, with 250 employees, contributed approximately 50% to INTERACTIVE's 1990 revenue.

As of June 30, 1991, the company employed 400 persons, segmented as follows:

Marketing/sales	65
Research and development	285
Customer support	20
Computer/MIS operations	10
Finance/administration/legal	20
	400

INTERACTIVE's primary competitor is Santa Cruz Operations, Inc.

### **Key Products and Services**

Approximately 50% of INTERACTIVE's 1990 revenue was derived from packaged software products and 50% from technology licenses and customization of software to meet client specifications.

INTERACTIVE develops and markets a complete line of UNIX packaged products for 1386/1486-based computers. These products are available separately or as components of the INTERACTIVE ARCHITECT Series, an integrated set of software products

preconfigured to meet the specific needs of application, network, and workstation computing. Products available include the following:

- Operating Systems Products:
  - UNIX System V Release 4
  - INTERACTIVE UNIX System V Release 3.2
  - INTERACTIVE VP/ix
  - INTERACTIVE Software Development System
- Networking Tools:
  - INTERACTIVE Ported NetWare
  - INTERACTIVE TCP/IP
  - INTERACTIVE NFS
  - INTERACTIVE SMB/ix
  - INTERACTIVE UNIX-PC Interface
- Graphical User Interfaces:
  - INTERACTIVE Easy Windows
  - INTERACTIVE X11
  - INTERACTIVE Motif
  - INTERACTIVE Looking Glass
  - INTERACTIVE Multiview
  - INTERACTIVE Multiview Desktop
  - INTERACTIVE TEN/PLUS & MAIL SYSTEM
- Applications:
  - Lotus 1-2-3 for UNIX System V
  - The Norton Utilities for UNIX System V

INTERACTIVE offers OEMs the following portable software technology for license:

- SPARC-compliant software: SunOS, SunView, Open Windows X11/NeWS, Open Boot, Portable Open Windows Source
- UNIX System V for i386/i486 platforms
- VP/ix (DOS-under-UNIX)

With the acquisition of Lachman Associates in 1989, INTERACTIVE has expanded its service business to provide a range of consulting and software development services to assist end users in deploying open systems.

- Networking technologies supported include:
  - TCP/IP
  - NFS
  - NetBIOS
  - OSI Product Family
  - OSI/TCP Application Facility
  - Portable STREAMS Environment
  - SNMP
  - X.400 Product Family
- Professional services provided include system and network analysis and design, and design and development services for systems software, software integration, software interconnection of existing applications, and application conversions to UNIX platforms.
- INTERACTIVE also provides contract development services for UNIX-based products to major system manufacturers, including IBM, AT&T, Fujitsu, CompuAdd, Motorola, Teradyne, Tera, Microsystems, and Weitek Corp.

**Industry Markets**      The company's products are used by clients across industry sectors.

Major clients include AT&T, IBM, BMW, GE, and Siemens.

**Geographic Markets**      The majority of INTERACTIVE's 1990 revenue was derived from the U.S. and the remainder from international sources (primarily Germany).

- In the U.S., INTERACTIVE has research and development centers in Austin (TX), Boulder (CO), Calabasas and Santa Monica (CA), Cambridge (MA), Columbus (OH), Naperville (IL), and Rochester (NY). Other U.S. offices are located in Houston (TX), New York (NY), Reston (VA), and Santa Cruz and San Francisco (CA).
- INTERACTIVE's European headquarters is located outside of London.



## COMPANY PROFILE

### INTERACTIVE SYSTEMS CORPORATION

2401 Colorado Avenue, 3rd Floor  
Santa Monica, CA 90404  
(213) 453-8649

Dr. John P. White, Chairman and CEO  
Private Corporation  
Total Employees: 160  
Total Revenue, Fiscal Year End  
5/31/84: \$16 million\*

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### THE COMPANY

- INTERACTIVE Systems Corporation, founded in June 1977, markets operating systems and other systems software, including products for electronic communications. INTERACTIVE also sells communications boards and an intelligent terminal for use with its software.
- INTERACTIVE currently has 160 employees, segmented as follows:

Marketing/sales	30
Product development and customer support	100
General and administrative	<u>30</u>
	160

### KEY PRODUCTS AND SERVICES

- Virtually all of INTERACTIVE's fiscal 1984 revenue was derived from systems software sales. Less than 10% was derived from hardware sales.
- INTERACTIVE System/Three (IS/3) is a general purpose, multiuser, interactive operating system based on AT&T's System III version of UNIX. IS/3 provides a flexible operating environment and tools for program development, document preparation, and text processing.
  - IS/3 runs on the DEC PDP-11/44, 11/45, 11/70, and VAX-11/750 and 11/780 processors. It also runs on the IBM PC, under PC/IX; IBM mainframes using the VM/IX operating system; and on the SCI Systems' multiuser microcomputer under IM/IX. It is priced from \$900 to \$47,000.
- INTERACTIVE System/Workbench for VAX/VMS (IS/WB) integrates key UNIX tools into the VMS environment. IS/WB provides a convenient working environment and a uniform set of tools for program development and document preparation.
  - IS/WB runs on the DEC VAX-11/730, 11/750, 11/780, 11/782, and 11/785 processors and is priced from \$10,000 to \$25,000.

\*INPUT estimate

## INTERACTIVE SYSTEMS CORPORATION

- Advanced Productivity System (APS) is an integrated set of software tools designed to improve the productivity of professionals working in offices and software development groups. APS combines the facilities of the UNIX operating system and INTERACTIVE software tools that are useful in both program development and office applications.
- The most recent product from INTERACTIVE, introduced in December 1984, is the Integrated Corporate Communications System (ICCS). ICCS supports a distributed network of UNIX processors running an integrated set of software tools. ICCS is a superset of APS and includes full customer support and training for building UNIX-based networks. ICCS is divided into four subsets as follows:
  - Operating System Subset: consists of either the INTERACTIVE System/Three (IS/3) operating system or the INTERACTIVE System/Workbench for VAX/VMS (IS/WB) operating system.
  - Extended Operating System Subset: consists of the Operating System Subset plus the INed screen editor.
  - User Communication Subset: includes the above, plus electronic mail and networking facilities.
  - APS Subset: includes the above, a word processing package, and four terminal emulators.
- Optional software products designed by INTERACTIVE to run with its operating system range in price from \$2,000 to \$7,000 and include:
  - INed: the INTERACTIVE Editor, a screen-oriented text editor that runs on virtually any CRT terminal capable of absolute cursor positioning.
  - INcompose: a formatter for typesetters.
  - INword: a text formatting system, may be used to format output for several kinds of typesetters with INcompose, printers, typewriters, and hard-copy terminals. INTERACTIVE offers a series of postprocessors for various output devices.
  - The INTERACTIVE C Compiler for VAX/VMS: generates VAX assembler code that may then be assembled into native-mode object code for the VAX using the VAX macro assembler.
  - The INTERACTIVE C Cross Compiler for Z80: generates Z80 assembler code that may be assembled into native-mode object code for the Z80 using the Z80 macro assembler.

## INTERACTIVE SYSTEMS CORPORATION

- The INTERACTIVE C Cross Compiler for the 68000: generates code that may be assembled into 68000 object code using the 68000 assembler.
- INremote/HASP: the INTERACTIVE Remote Job Entry System, allows job submission and retrieval from an IBM host system.
- FTP: INTERACTIVE's File Transfer Program, transfers files between remote and/or co-located computers via dedicated connections. Dial-up connections are supported if Connect is available.
- Connect: INTERACTIVE's remote connect software, provides a transparent connection between a user's terminal and a port on another computer.
- INmail: an electronic message system, is used to create, send, answer, and file messages, letters, memoranda, reports, and documents. All messages created using INmail are accessible by other INTERACTIVE packages.
- INnet: supplements INmail, providing electronic mail facilities between computers on a network. Remote file copying and printing is also supported.
- INtelex: the electronic message interface between INmail and international telex networks.
- Ten Plus: an alternative to the UNIX shell. Provides an easy-to-learn user interface for nonprogrammers.

### INDUSTRY MARKETS

- INTERACTIVE products are used by clients across industry sectors.

### GEOGRAPHIC MARKETS

- The majority of INTERACTIVE's software revenue is derived domestically. International sales are primarily from Europe. Fiscal 1984 revenues were derived approximately as follows:

U.S.	80%
International	<u>20</u>
	100%

- INTERACTIVE has regional sales offices located in New York City; Dallas; Boston; Chicago; Washington, D.C.; and Los Angeles. Research and development offices are located in Gaithersburg (MD); Boulder, (CO); Boston; and Santa Monica (CA).

COMPUTER HARDWARE AND SOFTWARE

- INTERACTIVE has approximately 60 systems, ranging from DEC VAX/780 to the IBM PC installed at its various development locations, including the following:
  - DEC VAX-11/780s, operating under IS/3 and VMS.
  - 1 IBM 4361, operating under VM/IX.
  - 1 DEC 11/70, operating under IS/3.
  - IBM PC XTs and PC ATs, operating under PC/IX.
  - Onyx M68000-based machines, operating under IS/3.
  - SCI1000s, operating under IN/IX.

## COMPANY HIGHLIGHT

### INTERACTIVE SYSTEMS CORPORATION

1212 Seventh Street  
Santa Monica, CA 90401  
(213) 450-8363

Dr. John P. White, Chairman and CEO  
Private Corporation  
Total Employees: 85  
Total Revenue, Fiscal Year End  
5/31/82: \$10,300,000  
Computer Services Revenue:  
\$6,500,000

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### THE COMPANY

- INTERACTIVE Systems Corporation, founded in June 1977, markets operating and other systems software, including products for electronic communications. INTERACTIVE also sells computer hardware.
- Fiscal 1982 revenue was \$10.3 million, a 10% increase over 1981 revenue of \$9.4 million. Computer services revenue for fiscal 1982 was \$6.5 million, a 25% increase over 1981 revenue of \$5.2 million.
- As of May 1982 the company had 85 employees. INTERACTIVE currently has 100 employees, segmented as follows:

Marketing/sales	20
Product development and customer support	65
General and administrative	<u>15</u>
	100

### KEY PRODUCTS AND SERVICES

- One hundred percent of INTERACTIVE's fiscal 1982 computer services revenue was derived from systems software sales.
- Operating systems marketed by INTERACTIVE have an installed base of over 300 sites.
  - INTERACTIVE System/One (IS/1) is a general purpose, multiuser, interactive operating system based on Bell Laboratories' UNIX system. IS/1 runs on DEC PDP-11/45 and 11/70 computers and provides a uniform set of tools for program development and document preparation.
  - INTERACTIVE System/One Workbench (IS/1 Workbench) has all the features of IS/1 in addition to two specialized subsystems for the control and manipulation of documents and software programs.

## INTERACTIVE SYSTEMS CORPORATION

- The product runs on DEC PDP-11/40 and 11/70 computers and is priced from \$5,000 to \$35,000.
  - IS/I Workbench is INTERACTIVE's largest selling software product.
- IS/I Workbench for VAX/VMS is designed to run on DEC VAX equipment under the VMS operating system and is priced from \$10,000 to \$40,000.
- All three operating systems can include UNIX Version 7 functionality. In addition to running on DEC equipment, the Version 7 systems are incorporated as the standard operating system for the INTERACTIVE IDEA Machine, the company's Z8000-based microcomputer system.
- In June 1982 the company introduced INTERACTIVE System/Three (IS/3), a family of general-purpose timesharing systems based on AT&T's System III version of UNIX. IS/3 provides a flexible operating environment and tools for program development, document preparation, and text processing.
  - IS/3 runs on DEC PDP-11/70, 11/45, and 11/44; DEC VAX-11/780 and 11/750; and INTERACTIVE's IDEA Machine (ONYX C8002).
  - Prices range from \$5,000 for the IDEA version to \$35,000 for the DEC VAX version.
- Optional software products designed by INTERACTIVE to run with its operating systems range in price from \$3,000 to \$8,000 and include:
  - Z80/Cross, a C cross compiler for the Z80 to produce Z80 Assembler output. Z80/Cross runs under IS/I and IS/I Workbench.
  - INfort, a Fortran 77 compiler, currently runs under IS/I and IS/I Workbench.
  - INed, a screen-oriented text editor.
  - INword, a word processing system, is designed for office environments.
  - INcompose, a text formatting system, may be used to format output for several kinds of typesetters, printers, typewriters, and hard-copy terminals. INTERACTIVE offers a series of postprocessors for various output devices.
  - INmail, an electronic message system, is used to create, send, answer, and file messages, letters, memoranda, reports, and documents. All messages created using INmail are accessible by other INTERACTIVE packages.

## INTERACTIVE SYSTEMS CORPORATION

- INnet, an enhancement to INmail, provides electronic mail facilities between computers on the network.
- INtelex, the electronic message interface between INmail and international telex networks.
- INremote/HASP, the INTERACTIVE Remote Job Entry System, allows job submission and retrieval from an IBM host system.
- Connect, INTERACTIVE's remote connect software, provides a transparent connection between a user's terminal and a port on another computer.
- FTP, INTERACTIVE's File Transfer Program, transfers files between remote and/or colocated computers via dedicated connections.
- Incard/X.25 implements X.25, the International Packet Switching Protocol Standard, to provide access to any public or private data network supporting this protocol.
- Hardware sales represented 37% of total revenue in fiscal 1982. INTERACTIVE offers its Z8000-based INTERACTIVE IDEA Machine and Intext II editing terminal along with a wide variety of DEC PDP, VAX, and compatible equipment.
  - In fiscal 1982, INtext II terminal sales were \$2.5 million and all other equipment sales were \$1.3 million.

### INDUSTRY MARKETS

- INTERACTIVE products are used by clients across industry sectors.

### GEOGRAPHIC MARKETS

- The majority of INTERACTIVE's software revenue is derived domestically. International sales are primarily from Europe.
- INTERACTIVE has regional sales offices in New York City, Dallas, and Washington, D.C.

### COMPUTER HARDWARE AND SOFTWARE

- INTERACTIVE has about 25 systems, ranging from DEC VAX-780 to Onyx C8002 equipment, installed at its various development locations.





## COMPANY BRIEF

Cross Industry: Systems Software

### **Interactive Technology Incorporated**

10700 S.W. Beaverton-Hillsdale Highway  
Suite 460  
Beaverton, OR 97005  
(503) 644-0111

CEO: Roger A. Brown, President  
Private Company  
Founded: 1982

Employees: 25 (12/86)  
Revenue (FYE 12/31/86): \$2,000,000\*

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**The Company:** Interactive Technology develops and markets application development software that meets the needs of small and medium businesses using DEC computer systems

### **Key Products:**

- Systems Software (Utilizes DEC's Professional 350/380, PDP-11, Micro II, and VAX series computers, running P/OS, RT-11XM, TSX+, RSTS, RSX, and VMS)
  - Responsive Data Manager (RDM) is a menu driven data base and application development package. RDM allows the systems developer to implement data base applications without the need to write computer code.
  - RDM has been used to create applications that solve problems in widely ranging fields such as:
    - General Business (general ledger, accounts payable, accounts receivable, purchase order, inventory, employee, sales, and marketing systems)
    - Health Care (patient records, hospital operations, test results, case histories, and drug and diet requirements)
    - Software Houses (in-house requirements and client application needs)
    - Education (registrations, student progress, attendance, and teaching data base concepts)
    - Scientific (experimental results tracking, abstract histories, and test result summaries)
  - RDM is installed on over 1,000 DEC computer systems worldwide
  - RDM is priced at \$995 for PRO 350/380, \$2,495 for PDP/11, and \$4,795 for VAX systems

### **Target Industries:**

- Cross industry
- Interactive Technology feels that small- and medium-sized businesses with 5 to 99 employees offers the greatest market potential for its RDM product

\*INPUT estimate

December 1986

**Geographic Markets:**

- U.S. (95%)
- Non-U.S. (5%)
- RDM is produced, marketed, and supported by DEC. In addition, Interactive Technology independently markets RDM to original equipment manufacturers for the development of custom software
- RDM is sold in Europe and Australia through distributors

**Significant Events:**

- In early 1984, Interactive Technology became a supplier to DEC's Classified Software (DCS) program

December 1986

## COMPANY PROFILE

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### **INTERCHANGE SYSTEMS, INC.**

1620 Massachusetts Avenue  
Lexington, MA 02173  
(617) 862-0010

Carl Drisko, President  
Private Company  
Total Employees: 17  
Total Revenue, Fiscal Year End  
12/31/88: \$2,000,000\*

\*INPUT estimate

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#### **The Company**

Interchange Systems, Inc. (ISI) was founded in July 1987 to design, develop, market, and support electronic data interchange (EDI) software products.

ISI joined the resources of Momentum Software, Inc. of Lexington (MA), a software product development organization, with Communications Programming, Inc., a Chicago-based consulting group. Momentum Software markets several packages to banks including Bank Search, a data base software product that tracks how money is moved electronically to a bank.

The founders of ISI have backgrounds in electronic funds transfer and EDI. ISI personnel have built payment systems for both banks and corporations.

- Under contract to the First National Bank of Chicago, the principals of ISI designed, developed, and installed the General Motors Electronic Payment System. This system was designed to use the ANSI X12 820 Remittance Standard to process payments.

Most of the ISI staff of 17 are involved in development, customer support, and consulting. The remainder handle marketing and administrative support.

#### **Key Products and Services**

NETPAY, ISI's first product, was released in December 1987. NETPAY is designed to process ANSI 820 formatted payment transactions and to translate the 820 transaction set into several other payment formats. NETPAY can also process several other transaction sets related to payments processing.

- NETPAY supports ANSI X12, TDCC, and EDIFACT standards. The product runs on DEC MicroVAX processors and also on IBM PC/AT and compatible microcomputers.

- NETPAY was designed for banks to service the EDI needs of their customers. NETPAY provides complete EDI transaction processing capabilities and includes the following features:

- Transaction Processing Features:

- Payment processing.
- Payment warehousing.
- Payment forwarding.
- Multiple proprietary network support.
- Affiliate processing.
- Return item processing.
- Cancellation message handling.
- Settlement message handling.
- Status message handling.
- Payment consolidation.
- Debit and credit consolidation.
- DDA interface.
- ACH interface.
- Lockbox interface.
- Translation from EDI formats to all corporate ACH formats (CCD, CCD+, CTP, CTX).
- Transmission staging.
- Transaction archiving.
- Advice-only processing.
- Automatic generation of acknowledgements.
- Automatic reconciliation of acknowledgements.
- Transmission retries.
- Process flow control.
- Batch job scheduling.
- User-defined processing scripts.

- Communications Support:

- Asynchronous communication support.
- Multiple modem support.
- Multiple baud rate support (1200 bps to 19.2 kbs).
- Synchronous communications support (2780/3780).
- Value-added network support.
- Multiple file transfer protocols.
- Automatic retries.
- Automatic redials.

- Security Features:

- Password security.
- Communications logon security.
- Encryption and authentication of messages.

- Operator profiles.
  - Encrypted data base fields.
- Payment Advising Facilities:
  - EDI advices.
  - Multiple BAI/lockbox advice formats.
  - MCI mail advices.
  - Paper advices.
  - Multiple advices for one payment.
  - Multi-tiered advising.
  - Off-network advices.
  - Advice consolidation.
- Reporting Features:
  - Statistical reporting.
  - Complete audit trails.
  - New account reports.
  - Settlement reports.
  - Account balancing reports.
- Backup and Recovery Features:
  - Transaction logging.
  - Automatic backups to fixed disk, Bernoulli cartridge, or magnetic tape.
  - Automated recovery.
- Bank Profiles:
  - EDI payment support.
  - ACH member.
  - ACH capabilities profile.
- Customer Service Inquiry Functions.
- Trading Partner Profiles.
- User-programmable Interfaces.
- NETPAY is priced at \$25,000 for the IBM PC version and \$125,000 for the DEC MicroVAX version.
- NETPAY has been licensed by various banks, including First National Bank of Chicago, Mellon Bank, Manufacturers Hanover Trust and Toronto-Dominion Bank.

In February 1988 ISI introduced NETMATE, a companion product to NETPAY, which permits a corporation to communicate and process all types of EDI transactions. NETMATE is distributed by NETPAY banks to their customers.

- NETMATE supports ANSI X12, TDCC, and EDIFACT standards.
- NETMATE runs on DEC MicroVAX processors and IBM PC/AT and compatible microcomputers.
- NETMATE offers the following features:
  - Message Handling:
    - Receipt, reformatting, and printing of X12 messages.
    - ANSI X12, CCD, CCD+, CTP, CTX, ACH (Automated Clearing House), and BAI (Bank Administration Institute) formats.
  - Communications:
    - Interface to VANs.
    - Authentication and encryption.
    - Dedicated or shared communication lines.
  - Inquiry Facility: Message review.
  - X12 Payor.
  - Office Systems Integration:
    - Integration with bank's existing accounts payable and accounts receivable systems.
- NETMATE is priced at \$1,000.

ISI offers additional training and consulting, and custom programming (\$75 per hour).

With NETPAY and NETMATE, ISI is taking a different strategy in the EDI software marketplace by focusing on financial transactions and targeting banks as EDI service providers and distributors of EDI software.

**Industry Markets**

ISI's EDI software products are marketed primarily to banks. Other customers include large corporations, being users of NETMATE. Banking customers are generally money center banks, super-regional banks and mid- to large-size regional banks. Corporate customers include grocery, manufacturing, high technology, and other companies.

**Geographic Markets**

A majority of ISI's revenue is derived from the U.S. The company also markets its software products in Canada.

In addition to its corporate headquarters at Lexington (MA), the company has an office in Chicago (IL).





## COMPANY BRIEF

Cross Industry: Graphics

### **Interchart Software, Inc.**

104 Carnegie Center  
Princeton, NJ 08540  
(609) 987-1590

CEO: Daniel G. Olasin, President  
Private Company  
Founded: 1985

Employees: 21 (2/86)  
Revenue (FYE 12/31/85): \$1.5 million\*

-----

**The Company:** Interchart Software provides business graphics applications software, processing services, and consulting services primarily to ISSCO software product users

### **Sources of Revenue:**

- Application Software (70%)
- Professional Services (20%)
- Processing (10%)

### **Key Products and Services:**

- Processing/Network Services (Utilizes IBM 4341, Model II computers)
  - Batch processing services using its application software packages
- Application Software (Utilizes IBM and compatible mainframes)
  - InterORG-Organization charting
  - InterMAP-Geographic mapping
  - InterDRAW-Digitized drawing
  - InterTAG-Business graphics
  - Talkshow/PC-Terminal emulation
  - I23 TAG-File conversion program for Lotus products and Tell-A-Graf users
  - ChartLink/PC-Tell-A-Graf on a PC
- Professional Services
  - General consulting services

### **Target Markets:**

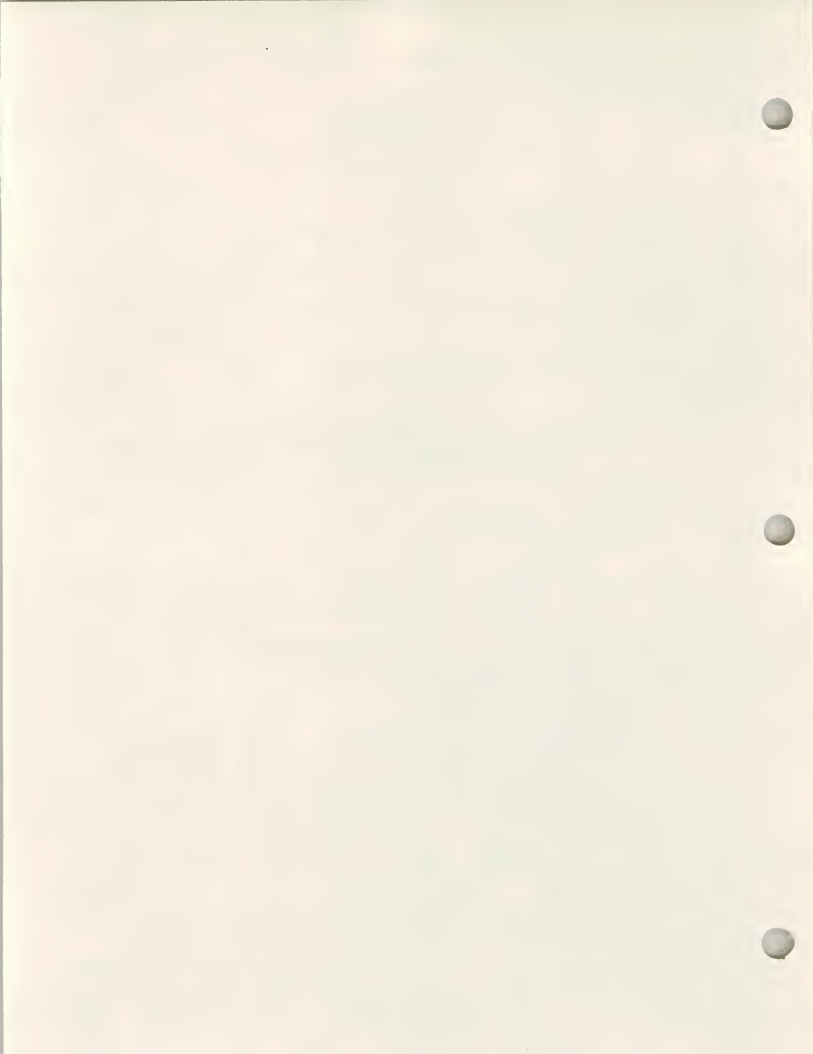
- Tell-A-Graf users (95%)
- Other (5%)

### **Geographic Markets:**

- U.S. (100%)
- Sales Offices: Chicago

\*INPUT estimate

October 1986



# COMPANY HIGHLIGHT

*Jerry Nickell EUP 1/81*  
*Dropped*  
*Acquired by CITICORP*

## INTERCONTINENTAL COMPUTING, INC.

2000 Johnson Drive  
 Shawnee Mission, KS 66205  
 (913) 362-3400

Jerome E. Baker, President  
 Public corporation, OTC  
 Total employees: 75  
 Total revenues fiscal year end  
 12/31/77: \$2,329,000

## THE COMPANY

- Intercontinental Computing, Inc. (ICCI) was incorporated in Delaware during 1970.
  - It began as a division of Intercontinental Services Corporation before being spun-off.
  - Originally, it was a diversified service bureau with several credit union customers. By 1976 management decided to concentrate on providing services to credit unions.
- Revenues for fiscal 1978 are expected to reach \$2.8 million, a 20% increase over 1977 revenues of \$2.3 million. A five-year financial summary of ICCI is shown in the table below:

Five Year Summary of Operations, ICCI  
 (\$ Thousand Except Earnings Per Share)

	1977	1976	1975	1974	1973
Revenues	\$2,329	\$1,907	\$2,126	\$2,289	\$2,389
Income before tax and extraordinary item	451	(1,143)	(322)	73	(18)
Net income	768	(779)	(14)	244	140
Income per share (after preferred stock requirements)	\$ 0.58	(\$0.63)	(\$0.03)	\$ 0.17	\$ 0.09

## COMPANY HIGHLIGHT/INTERCONTINENTAL COMPUTING, INC.

- ICCI employees are distributed as shown below:

- Marketing/sales	5
- Software services/customer support	20
- Systems and project development	10
- Computer operations	25
- General and administrative	15
	<hr/>
	75 people

- Management states that ICCI is actively seeking acquisition and investment opportunities.
- In July 1977, ICCI, Computer Services, Inc. (CSI) of Milwaukee, United Computer Services International Co. (UCSI), and the former shareholders of UCSI entered into an agreement where ICCI and CSI each purchased 50% of the outstanding common share of UCSI for \$1,000. They also pay out a royalty based on revenues over a given period.
  - Annual revenues for UCSI at the time of <sup>agreement</sup> acquisition were \$1 million. UCSI finances will not be consolidated with ICCI for financial reporting.
  - CSI provides remote computing services for credit unions.
  - The agreement included the sale of ICCI credit union applications software to CSI. The original agreement also provided for CSI to process credit union accounts of ICCI; however, this portion of the agreement was terminated in January 1978.
- In fiscal 1977, ICCI divested itself of its subsidiary, Executive Management Software and Services, Inc. The company specialized in the development and installation of software applications for the casualty insurance industry.

## KEY PRODUCTS AND SERVICES

- One hundred percent of ICCI revenues for 1977 were derived from interactive remote computing services to 112 credit unions, which serve a total of 800,000 member accounts. UCSI and ICCI serve together 220 credit unions with 1,900,000 accounts.
- Services include maintenance of share, sharedraft, and club accounts; certificates of deposit; mortgage installment loans; preparation of share and share-draft statements; dividend distributions; mortgage and installment loan billings; and numerous accounting, management, and regulatory agency reports. Reports provided include the following:
  - Summary trial balance report, daily
  - Share drafts

## COMPANY HIGHLIGHT/INTERCONTINENTAL COMPUTING, INC.

- Transaction totals by loan type, daily
  - Teller detail totals, daily
  - Activity audit, daily
  - Delinquent loan report, weekly
  - Loan type/collateral report, weekly
  - New accounts, monthly
  - Closed accounts, monthly
  - Delinquent loan notices register, monthly
  - Statements, quarterly
  - Form 1099s and comparable state forms, annually
  - Year end dividend and interest listing, annually
- ICCI has recently begun to offer turnkey systems to credit unions. These systems offer the same software as do ICCI's remote computing services. Management expects to install several turnkey systems during 1978 and 1979. Revenues from these systems will appear in the financials for these years.

**APPLICATIONS AND INDUSTRY MARKETS** One hundred percent of revenues are generated by specialty services to the credit unions (part of the finance and banking industry).

**GEOGRAPHIC MARKETS** ICCI revenues are generated entirely within the U.S. through branch offices as follows:

Los Angeles, CA: serves primarily the West Coast	20%
Houston, TX: serves Houston and Gulf coast regions of Texas only	20
Columbia, SC: serves the South Carolina area; will soon expand	15
Albany, NY: revenues are mostly derived from New York; however, some also come from Connecticut, Massachusetts, Maine, Pennsylvania, and Washington	20
Kansas City, KS: revenues are primarily derived from Kansas, Illinois, Iowa, and Oklahoma	25
	<hr/> 100%

## COMPUTER HARDWARE AND SOFTWARE

- Two Burroughs B 4700 CPUs, which employ the FORTE II data base management system, are used to provide processing services. Management plans to install a third Burroughs 4700 during the first quarter of 1979.

## COMPANY HIGHLIGHT/INTERCONTINENTAL COMPUTING, INC.

- At the end of fiscal 1977, approximately 300 terminals were operating as part of ICCI's services. Management states that this number reached about 350 during early 1978. Terminal types available include Burroughs, NCR, and Bunker Ramo.
- Terminals are linked to one of five Qantel 964 concentrators which transmit both input and output data over high speed lines to the Shawnee Mission, KS, data center. The Qantel equipment is located in Los Angeles, CA; Houston, TX; Columbia, NC; Albany, NY; and Kansas City, KS.
- Burroughs B 2800 and B 3800 series CPUs, purchased on an OEM basis, used in turnkey systems.

Dapper

COMPANY HIGHLIGHT

INTERDATA  
2 Crescent Place  
Oceanport, New Jersey 07757  
(201) 229-4040

↓

Daniel Sinnott, President  
Wholly owned subsidiary of  
Perkin-Elmer Corporation  
Employees: 1200 worldwide; approximately  
1000 in U.S.  
Revenues for fiscal year end 7/76:  
\$60 million E\* (including Wangco, Inc.)

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KEY PRODUCTS: Interdata manufactures and markets minicomputers, software, peripherals and communication interfaces. Primary products marketed include two families of minicomputers, 16 and 32 bit; and software which supports these systems. Interdata stresses the full compatibility of its entire line of hardware and software.

Minicomputer revenues represent about \$40 million in sales. OEM oriented minicomputers account for 55% of minicomputer sales, and minis designed for end user markets represent the remaining 45%.

Key minicomputer product lines include:

- The 16 bit line, designed for OEM manufacturers who incorporate them in their systems, includes:
  - the 5/16, priced from \$3,200; the 6/16 middle performer, and the 8/16 high performance computer,
- The 32 bit line which is designed for end users has a main memory capacity up to one million bits:
  - Introduced in 1974, the 7/32 is the first 32 bit minicomputer developed for the end user market. Priced under \$10,000.
  - 8/32 a powerful megamini designed for end user markets. Priced from \$59,100.
- Additional minicomputers available from Interdata:
  - Interdata Model 50
  - Interdata Model 55
  - Interdata Model 60
  - Interdata Model 70
  - Interdata Model 74
  - Interdata Model 80
  - Interdata Model 85

\*E signifies estimate by INPUT.

## COMPANY HIGHLIGHT/INTERDATA

- Languages supported by Interdata include BASIC, FORTRAN and CAL (Common Assembler Language)
- The Carousel printer terminal was introduced in 1975. This Daisy Wheel impact printer operates at 30 characters per second and has a microprocessor controller.

APPLICATIONS: Applications being targeted by the end user minicomputer line include simulation, seismic analysis, data communications, general business and scientific computation. Applications in the manufacturing industry include machine control, process control, quality control and productivity measurement.

INDUSTRY MARKETS: The manufacturing industry accounts for half the sales, as shown by the distribution of sales revenue by industry below:

Manufacturing	50%
Transportation	-0-
Utilities	5%
Distribution	5%
Banking/Finance	10%
Insurance	-0-
Medical/Hospital	5%
Education	10%
Government	15%

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Total	100%
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GEOGRAPHIC MARKETS: Users in the U.S. account for approximately 60% of revenues. Business is distributed throughout industrial centers across the country, with some concentration in the Northeastern region. Sales offices are located in 25 metropolitan areas, including New York, Chicago, Los Angeles, Philadelphia, Boston and Houston. The balance of revenues are derived from users in Canada and Australia, and to a lesser extent, Europe. Interdata has international marketing and subsidiary operations in Australia, Canada, France, Germany, Japan and the United Kingdom.

COMPUTER HARDWARE AND SOFTWARE: Interdata markets computer systems and software. The company does not provide computer services.

### OVERALL ASSESSMENT AND TRENDS:

#### • History

Interdata was founded in July 1966 by Daniel Sinnott and Arthur Furman. Both were previously affiliated with Electronic Associates, Inc. (EAI). Sinnott formed Interdata when it became apparent that

November/1976  
45.2



## COMPANY HIGHLIGHT/INTERDATA

EAI was concentrating on analog machines despite the strong surge in digital computers. Interdata went public in 1967 and was later acquired by Rowan Industries. Perkin-Elmer Corporation acquired Interdata in July 1974. The founding management team has been retained through both acquisitions.

- Growth

Interdata has maintained a compound annual growth rate of about 50% for the past seven years.

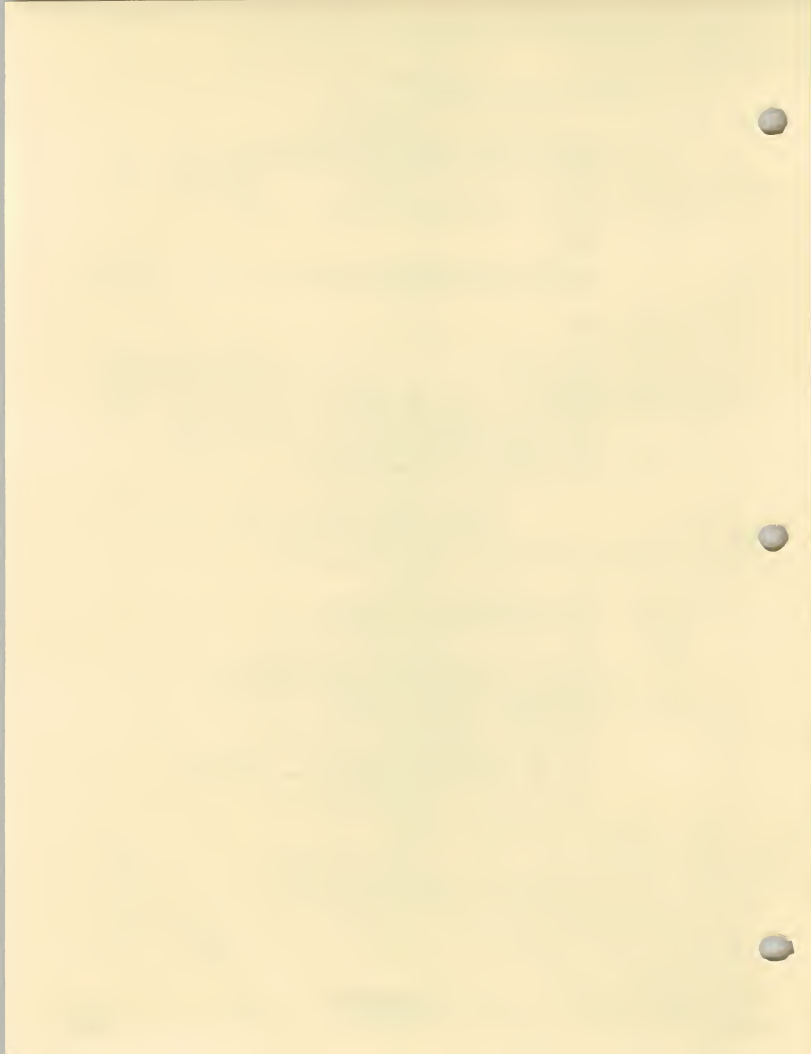
- Trends

Interdata is technically very competent. The company spends 9% of annual sales on research and development, and some 200 employees constitute the engineering department. In view of its technical orientation, Interdata should do well by concentrating development and marketing efforts on technical manufacturing applications. The firm has also done well in the military defense markets, although it is not targeting this area. Large military contracts include:

- \$8 million with the Australian Department for Defense for 7/32s, to be used for data communications and inventory control.
- \$12 million with the U.S. Navy in 1975 for 100 minicomputers.

- The Parent Company

The parent, Perkin-Elmer, is a manufacturer of precision scientific instrumentation with annual sales in 1976 of \$349 million. Perkin Elmer has recently acquired Wangco, Inc., a Los Angeles manufacturer of magnetic tape and disc drives. Wangco and Interdata are combined into one division, representing an estimated total of \$60 million in annual sales. The combination of Interdata and Wangco, backed by a financially stable parent company, will give the minicomputer systems group the critical mass to compete effectively in the minicomputer market.



## COMPANY PROFILE

**INTERGRAPH CORPORATION**  
One Madison Industrial Park  
Huntsville, AL 35807-4201  
(205) 772-2000

James W. Meadlock, Chairman and  
President  
Public Corporation, OTC  
Total Employees: 5,100  
Total Revenue, Fiscal Year End  
12/31/85: \$526,405,000

### THE COMPANY

- Intergraph, incorporated in Alabama in 1969 as M&S Computing, Inc., designs, manufactures, markets, and supports turnkey computer-aided engineering/computer-aided design/computer-aided manufacturing (CAE/CAD/CAM) interactive graphics and data base management systems. The company also provides professional services and engineering consulting.
- 1985 revenue reached \$526.4 million, a 30% increase over 1984 revenue of \$403.8 million. Net income rose 8% from approximately \$62.9 million in 1984 to \$67.8 million in 1985. A five-year financial summary follows:

#### INTERGRAPH CORPORATION FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

ITEM \ FISCAL YEAR	1985	1984	1983	1982	1981
Revenue	\$ 526,405	\$ 403,762	\$ 252,014	\$ 155,642	\$ 91,097
• Percent increase from previous year	30%	60%	62%	71%	61%
Income before taxes	\$ 118,537	\$ 109,550	\$ 57,792	\$ 25,254	\$ 16,226
• Percent increase from previous year	8%	90%	129%	56%	94%
Net income	\$ 67,779	\$ 62,936	\$ 29,342	\$ 13,004	\$ 8,268
• Percent increase from previous year	8%	114%	126%	57%	81%
Earnings per share (a)	\$ 1.25	\$ 1.22	\$ 0.58	\$ 0.28	\$ 0.18
• Percent increase from previous year	2%	110%	107%	56%	38%

(a) Restated to reflect a two-for-one stock split effective May 31, 1985.

## INTERGRAPH CORPORATION

- Intergraph management attributes the slower rate of revenue growth during 1985 primarily to the following:
  - The average cost-per-seat declined as a result of the advent of micro-computers as makeshift graphics tools, price-cutting by financially ailing graphics firms, and lower cost per function of new hardware products. Although the number of workstations sold increased significantly over previous years, revenue grew at a slower rate.
  - An uncertain economy caused delays and reductions of capital spending by industrial firms.
- Earnings for 1985 were affected by several factors, including:
  - Increased research, development, and marketing expenses associated with the introduction of new products.
    - Product development expenditures were approximately \$50.7 million (10% of revenue) in 1985, compared to \$37.1 million (9% of revenue) in 1984, and \$25.4 million (10% of revenue) in 1983.
    - Marketing expenditures were approximately \$56.1 million (11% of revenue) in 1985, compared to \$37.5 million (9% of revenue) in 1984, and \$27.1 million (11% of revenue) in 1983.
  - Major investments in new international operations in Japan, Korea, Taiwan, New Zealand, and Switzerland.
- In May 1985 Intergraph completed a public offering of 3.3 million shares of its common stock, adding net proceeds of approximately \$88 million to its working capital.
- Recent acquisitions made by Intergraph include the following:
  - In February 1986 the company announced plans to acquire Optronics International, Inc. of Chelmsford (MA). Each outstanding share of Optronics stock will be exchanged for \$2.45 in Intergraph stock.
    - Optronics manufactures and markets electro-optical image scanning/recording instruments and optical components and test systems. The company had 1985 revenue of \$5.8 million and 68 employees.
    - Optronics will operate as a subsidiary of Intergraph. Its imaging technology will be used to complement Intergraph's existing and future product lines, primarily in the fields of mapping and electronic publishing.
  - On February 28, 1985, Intergraph acquired The Rand Group, Inc. of Dallas for 119,942 shares of Intergraph common stock.

## INTERGRAPH CORPORATION

- The Rand Group developed Rand-Micas, a finite element analysis package for frame and steel applications.
- The company now operates as a wholly owned subsidiary of Intergraph.
- In December 1984 Intergraph acquired the remaining majority ownership interest in its Canadian affiliate, Intergraph Systems Limited, for 42,224 shares of Intergraph common stock. An additional 11,542 shares were issued during 1985 to complete the transaction. The acquisition was accounted for as a purchase.
- In August 1984 Intergraph purchased a 50% interest in Tangent Systems Corporation (Santa Clara, CA) for \$2 million. Tangent Systems develops integrated circuit design software.
- Revenue for the three months ending March 31, 1986 was \$147 million, compared to \$109 million for the same period in 1985. Net income for the quarter was \$18 million, compared to \$14.3 million for the same quarter a year ago.
- As of December 31, 1985, Intergraph had approximately 5,100 employees. The company currently has 5,380 employees.
- Intergraph considers its principal competitors to be Applicon, Auto-trol Technology Corporation, Calma, Computervision Corporation, IBM, and McDonnell Douglas Information Systems Group.

### KEY PRODUCTS AND SERVICES

- Intergraph reports its revenue in two categories: sales, which includes turnkey systems and professional services revenue; and service and equipment rentals, which includes maintenance revenue. A three-year summary of source of revenue follows (\$ thousands):

ITEM	FISCAL YEAR		
	1985	1984	1983
Sales			
• Revenue	\$ 433,272	\$ 350,751	\$ 220,560
- Percent of total	82%	87%	88%
Service and equipment			
• Revenue	\$ 93,133	\$ 53,011	\$ 31,454
- Percent of total	18%	13%	12%
Total Revenue	\$ 526,405	\$ 403,762	\$ 252,014

## INTERGRAPH CORPORATION

- INPUT estimates that 82% of Intergraph's 1985 revenue was derived from turnkey systems and associated consulting services and 17% from maintenance services. An estimated 1% of revenue was derived from noncomputer engineering services and equipment rentals.
- Intergraph currently has over 2,300 turnkey CAE/CAD/CAM systems installed worldwide for over 2,200 customers. These DEC-based interactive systems support the creation, analysis, display, and maintenance of designs, drawings, maps, or other graphic representations while simultaneously managing a data base of non-graphic descriptive attributes associated with the graphics data.
- Intergraph systems are configured to meet individual customer requirements.
  - The hardware components of each system include:
    - A DEC central processor.
    - The Interbus file processor.
    - A graphics processor.
    - Communications processor.
    - Microprocessors to distribute intelligence and processing functions.
    - Plot controllers.
    - Graphics workstation.
    - A professional workstation.
  - Intergraph systems are based on DEC's VAX and Micro VAX II 32-bit computers running under RSX-11M and VMS. Pricing is for the complete turnkey system, including software. All Intergraph software packages run on all hardware configurations.
    - The Micro II<sup>T.M.</sup> is a DEC Micro VAX II-based, four-workstation system that operates as an entry-level system or as a node on the Ethernet network. The system runs on Micro VMS, a subset of VAX/VMS and is priced between \$40,000 and \$60,000 depending upon configuration. Shipments began in August 1985.
    - The Intergraph 200® Series, introduced in 1985, is based on the MicroVAX II. The products provide multi-user, multi-tasking processor support at a reduced cost.
      - The Intergraph 200 supports up to 12 Intergraph graphics workstations, plus standard peripherals. The Graphics Processor is optional.
      - The Intergraph 250 is functionally identical to the 200, but has a larger tape drive and mounting space for disk drives.
      - The systems range in price from \$120,000 to \$135,000 and may function as a node in a distributed graphics system or as the host for a standalone system.

## INTERGRAPH CORPORATION

- The Intergraph 780, based on the VAX-11/780, is targeted to large-scale production environments requiring multi-user/multi-function capabilities. The system ranges in price from \$366,000 to over \$500,000.
- The Intergraph 751, based on the VAX-11/750, is targeted to medium-sized production environments requiring multi-user/multi-function capabilities. The system ranges in price from \$260,000 to \$400,000.
- The Intergraph 730, based on the VAX-11/780, is targeted to small-scale production environments. The system ranges in price from \$161,000 to \$250,000.
- Intergraph is currently developing its 8600 Series systems, based on DEC's 8650 computer, for large-scale processing requirements. Availability is scheduled for the second quarter of 1986. System prices start at \$680,000.
- Intergraph workstations include:
  - The InterAct dual-screen graphics workstation.
  - The InterPro desk-top workstation for production graphics.
  - The InterView dual-screen workstation for use with large digitizing tables.
  - The InterMap boom-mounted graphics workstation designed for mapping applications.
  - The InterMap Analytic, introduced in 1985, is a combination workstation/analytical stereoplotter.
  - The Interpro 32<sup>T.M.</sup> workstation, introduced in 1985, is based on the National Semiconductor 32032 microprocessor. It offers basic graphics capabilities and can operate as a standalone system running third-party software under the UNIX operating system or as an IBM-compatible PC running programs under MS/DOS, as well as operating as a workstation to access Intergraph engineering and project management tools.
- Intergraph has developed two proprietary software systems that provide the graphics and data base capabilities for its turnkey products as well as systems software for various other functions.
- Interactive Graphics Design Software (IGDS) provides fundamental graphics element creation, maintenance, and display functions via graphics workstations. IGDS supports both two- and three-dimensional graphics.

- Data Management and Retrieval System (DMRS) is responsible for attribute, or non-graphics, data management. The system includes a comprehensive report writer used to produce reports and format data, interactive query facilities, and a built-in SORT feature.
- Intergraph uses standard systems software available from DEC for its central processors. Intergraph provides additional systems software for translating data to Intergraph formats, inputting large volumes of text into graphics and attribute files, communicating with other computer systems, providing support for various models of electrostatic and pen plotters (both on-line and off-line), and producing computer output microfilm.
- Intergraph offers systems tailored to a broad range of applications. Historically, the company has derived the majority of its revenues from systems for land use and resource management, process and power design, energy exploration, and architectural and engineering design. In recent years, Intergraph has developed systems addressing mechanical design and manufacturing, electronics design and manufacturing, and electronic publishing. Intergraph's applications products, and their uses, include the following:
  - Architectural & Engineering Design.
    - Intergraph's Architectural and Engineering Design System automates the total project design and management process. With this software, a firm can develop and model building concepts, produce all construction documents, and manage space in a finished facility.
    - The system is offered as a set of compatible modules to serve the needs of large or small architectural firms, interior design firms, engineering firms, and corporate or governmental facility management offices.
    - Included are capabilities for producing 3-D models of design concepts, architectural drawings, specifications, and engineering plans, including HVAC, electrical, and plumbing. To help clients make the best use of current and planned facilities, packages are offered for strategic planning, space planning, and facility management.
  - Civil Engineering.
    - The Intergraph system features software for creating 3-D structural models and erection drawings for analysis and for the completion of steel and concrete detailing.
    - The Intergraph-RandMicas® analysis and design product, available with the system, supports 2-D and 3-D frame and finite element-based structural analysis and design.



- The Intergraph civil engineering system also provides functions for developing site plans for buildings, streets, highways, and airports, and for design of facilities to carry electricity, water, gas, and sewage.
- Mechanical Design and Manufacturing.
  - For the manufacturing market, Intergraph offers Mechanical Design and Manufacturing Software to automate the complete product development cycle, from design through analysis to documentation and manufacturing. Clients use the system to design mechanical parts and assemblies in three dimensions, defining complex parts with specialized sculptured surfacing and solids modeling software.
  - Intergraph's finite element modeling software enables structural engineers to prepare designs for analysis, simulating the stresses encountered in end use. The system supports Intergraph-RandMicas as well as NASTRAN, STRUDL, ANSYS, and other standard third-party analysis programs. The Intergraph-RandMicas product supports interactive static and dynamic analyses for a range of mechanical parts and assemblies.
  - For mechanism element modeling, software is available to prepare mechanism models for input to third-party kinematic and dynamic analysis programs, such as ADAMS and DRAM.
  - Intergraph also offers interfaces to MOLDFLOW and MOLDCOOL analysis programs for mold design.
  - Intergraph capabilities for generation of engineering production drawings include the extraction of annotation views from 3-D models and dimensioning the view directly in the drawing.
  - Numerical control programming software, with on-line tool and machine libraries, supports interactive display of machine simulations and builds linkages to numerically controlled tools.
  - Recent developments include robot programming software for modeling and simulating complete automated manufacturing processes.
- Electronics Design and Manufacturing.
  - Customers in the electronics industry use the Intergraph Electronics Design System to unite all phases of the circuit design process within a single data base. With this system, designers can create both digital and analog circuitry, choosing from such packaging technologies as single-sided, double-sided, multilayered, surface-mounted, hybrid, and Multiwire. System

capabilities include schematic creation, automatic or interactive placement and routing, and advanced circuit board checking and refinement. Intergraph also offers a variety of interfaces to NC manufacturing equipment.

- Recent developments include computer-aided engineering capabilities for hierarchical schematic design with on-line electrical rules checking, logic and fault simulation, and circuit simulation.
- For the engineering and design of standard cell integrated circuits, Intergraph offers software developed by Tangent Systems Corporation. Tangent software includes functions for timing assurance, editing, placement and routing, and design verification.
- Electronic Publishing.
  - Intergraph's Electronic Publishing System automates the preparation and publication of the documentation required by design, engineering, and mapping projects. With this integrated system, companies can produce repair and assembly manuals, map books, product guides, proposals, catalogs, training manuals, and similar documents. The system enables the user to create and preview pages, complete with text and illustrations, and then output the results to a typesetter without ever passing through the paper stage.
  - With the system, technical illustrations can be generated either from scratch or extracted from the original design in the working data base (freeing the operator from tracking paper copies and redrawing part designs). Scanning and image processing capabilities incorporate photographs and hard copy line art as document illustrations. Presentation products such as slides, viewgraphs, photographs, and other graphic media can be generated in-house for more effective corporate and sales presentations.
- Land Use and Resource Management.
  - Intergraph is a major supplier of interactive graphics systems for land use and resource management applications.
  - Customers include military and civilian mapping agencies, local governments (for managing land records and conducting tax appraisal operations), forest products companies, and other firms managing large tracts and performing resource studies.
  - Recent developments in software for processing scanned data and systems for stereodigitizing have increased the speed and

accuracy with which information is captured from existing maps and aerial photographs.

- Several new software products have been developed to support civil engineers and petroleum exploration analysts in the production of precise surface topography and subsurface geologic models.
- Cartography.
  - Intergraph offers a range of products serving both the general mapping industry and other specialized mapping applications, such as energy exploration.
  - Map data can be entered on the Intergraph system through direct digitizing of existing maps, from electronic survey instruments, and from a raster scanner. Software for edge matching aids in the integration of map sections into a continuous map.
  - The Intergraph World Mapping System software allows the user to enter map data from any one of eleven different projections into a common data base from which new maps can be produced in any of the supported projections and with symbology varying as a function of scale.
- Utility Distribution Engineering.
  - Intergraph has developed specialized software for the application of its interactive graphics and data base management capabilities to the needs of various utilities. Electric, gas, water, and telephone companies, and a variety of local government users are automating the work order production process.
  - The system's data base is used to maintain large quantities of spatially distributed information and, in turn, to generate project map reports supporting routine maintenance, tax valuation, plant inventories, and other tasks.
- Plant Design.
  - Intergraph's plant design software supports the design, engineering, and construction of offshore and onshore facilities for the petroleum industry, chemical plants, power generating stations, and other major industrial facilities. The software addresses the process, equipment, piping, instrumentation, electrical, structural, and other design aspects of a plant.
  - Specialized functions provide the capability to prepare 3-D plant models, create all required drawings, perform design analysis,

## INTERGRAPH CORPORATION

prepare requisitions for equipment and commodities, and generate the full range of reports required for review and construction.

### - Energy Exploration.

- Customers in the energy exploration and production industry use the Intergraph system for several different applications, including base mapping and geophysical and petrophysical evaluation. Intergraph provides exploration analysts with a variety of software products for entering and interactively displaying, interpreting, editing, and evaluating seismic survey and well log data.
- Intergraph mapping and data base management software is used for managing ownership, jurisdictional boundary information, site access, and well information.
- The Federal Systems Division, which contributed an estimated 8-9% to 1985 revenue, provides Intergraph systems and associated support services to federal agencies.

## INDUSTRY MARKETS

- Intergraph's 1985 revenue was derived primarily from companies in the discrete and process manufacturing, petrochemical, geophysical, utilities, architectural, and engineering industry sectors as well as state transportation and federal government agencies.

## GEOGRAPHIC MARKETS

- A three-year summary of Intergraph's geographic source of revenue follows:

	<u>1985</u>	<u>1984</u>	<u>1983</u>
U.S.	69%	70%	71%
Europe and other	<u>31</u>	<u>30</u>	<u>29</u>
	100%	100%	100%

- U.S. offices are located by region as follows:
  - West Coast: Irvine, Pasadena, San Jose, and Solana Beach (CA); Portland (OR); Seattle (WA); and Phoenix (AZ).
  - Western: Englewood (CO); Overland Park (KS); Metairie (LA); Tulsa (OK); and Austin, Dallas (2), Houston, and San Antonio (TX).
  - Midwest: Bettendorf (IA); Indianapolis and Crown Point (IN); Birmingham and Lansing (MI); Minnetonka (MN); Ballwin (MO); Columbus, Cleveland, and Dayton (OH); and Milwaukee (WI).

## INTERGRAPH CORPORATION

- Southeast: Birmingham (AL); Winter Park and Tampa (FL); Atlanta (GA); Lexington (KY); Raleigh (NC); and Memphis (TN).
- Northeast: Bridgeport (CT); McLean (VA); Westborough (MA); Lyndhurst (NJ); Clinton and Rochester (NY); King of Prussia and Pittsburgh (PA).
- Intergraph has wholly owned foreign subsidiaries in Belgium, Denmark, Finland, France, Italy, The Netherlands, Norway, Spain, Sweden, Switzerland, the United Kingdom, West Germany, Brazil, Singapore, Canada, Japan, and Korea.
  - The company has majority-owned or effectively controlled subsidiaries in Australia, Mexico, Venezuela, South Africa, Taiwan, and Bahrain.
  - Distributors also sell and service Intergraph products in Saudi Arabia, India, Indonesia, Japan, Korea, and Argentina.

### COMPUTER HARDWARE AND SOFTWARE

- Intergraph has the following computers installed at its headquarters:
  - 4 DEC VAX-11/730s, VMS.
  - 12 DEC VAX-11/750s, VMS.
  - 17 DEC VAX-11/780s, VMS.
  - 12 DEC VAX-11/785s, VMS.
  - 7 DEC MicroVAX IIs, Micro VMS.



# FINANCIAL UPDATE TO PROFILE DATED AUGUST 1983\*

**INTERGRAPH CORPORATION**  
One Madison Industrial Park  
Huntsville, AL 35807  
(205) 772-2000

James W. Meadlock, Chairman and  
President  
Public Corporation, OTC  
Total Employees: 3,700  
Total Revenue, Fiscal Year End  
12/31/84: \$403,762,000

## INTERGRAPH CORPORATION FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

ITEM \ FISCAL YEAR	1984	1983	1982	1981	1980
Revenue	\$ 403,762	\$ 252,014	\$ 155,642	\$ 91,097	\$ 56,469
. Percent increase from previous year	60%	62%	71%	61%	91%
Income before taxes	\$ 109,550	\$ 57,792	\$ 25,254	\$ 16,226	\$ 8,360
. Percent increase from previous year	90%	129%	56%	94%	89%
Net income	\$ 62,936	\$ 29,342	\$ 13,004	\$ 8,268	\$ 4,580
. Percent increase from previous year	114%	126%	57%	81%	85%
Earnings per share (a)	\$ 2.44	\$ 1.16	\$ 0.56	\$ 0.37	\$ 0.25
. Percent increase from previous year	110%	107%	51%	48%	67%

(a) Restated to reflect a two-for-one stock split effective February 9, 1983.

- In August 1984 Intergraph purchased a 50% interest in Tangent Systems Corporation (Santa Clara, CA), a startup company that develops integrated circuit design software. The purchase price was reported to be over \$5 million. Tangent's IC design packages will be exclusively marketed through Intergraph.
- In December 1984 Intergraph acquired the remaining majority ownership of its affiliate, Intergraph Systems Limited (Calgary, Alberta), for approximately \$2 million in stock and cash. Intergraph previously owned approximately 43% of the Canadian affiliate, which will continue to operate as a separate corporate entity. Results of operations have been consolidated with Intergraph's under the purchase method of accounting.

\*Replaces Financial Update of June 1984

## INTERGRAPH CORPORATION

- In January 1985 Intergraph announced an agreement in principle to acquire The Rand Group (Dallas, TX), developer of Rand-Micas—a finite element analysis package for frame and steel applications that runs on Intergraph's new Interpro 32 workstation. Rand will operate as a wholly owned subsidiary.
- Two major products announced in October 1984 were the Interpro 32<sup>T.M.</sup> desktop workstation and the Micro II<sup>T.M.</sup> Data Processing system.
  - The Interpro 32<sup>T.M.</sup> workstation, based on the National Semiconductor 32032 microprocessor, offers basic graphics capabilities and can operate as a standalone system running third-party software under the UNIX operating system or as an IBM-compatible PC running programs under MS/DOS, as well as operating as a workstation to access Intergraph engineering and project management tools. The workstation is priced at \$20,000. Shipments began in June 1985.
  - The Micro II<sup>T.M.</sup> is a DEC Micro VAX II-based, four-workstation system that operates as an entry-level system or as a node on the Ethernet network. The system runs on Micro VMS, a subset of VAX/VMS and is priced between \$40,000 and \$60,000 depending upon configuration. Shipments began in August 1985.
- Revenue for the six months ending June 30, 1985 was \$239.5 million, a 23% increase over revenue of \$177.5 million for the same period the previous year. Net income for the period was \$31.1 million, a 16% increase over net income of \$26.8 million for the comparable period in 1984.

### SOURCE OF REVENUE

- Intergraph reports its revenue in two categories: sales, which includes turnkey systems and professional services revenue, and service and equipment rentals, which includes maintenance revenue. A three-year summary by source of revenue follows (\$ thousands):

	1984	1983	1982
Sales			
• Revenue	\$ 350,751	\$ 220,560	\$ 138,040
- Percent of total	87%	88%	89%
Service and equipment			
• Revenue	\$ 53,011	\$ 31,454	\$ 17,602
- Percent of total	13%	12%	11%
Total Revenue	\$ 403,762	\$ 252,014	\$ 155,642

- Seventy percent of 1984 revenue was derived from the U.S., 17% from Europe, and the remaining 13% from other international locations.



## COMPANY HIGHLIGHT

INTERGRAPH CORPORATION  
One Madison Industrial Park  
Huntsville, AL 35807  
(205) 772-2000

James W. Meadlock, Chairman and  
President  
Public Corporation, OTC  
Total Employees: 1,800  
Total Revenue, Fiscal Year End  
12/31/82: \$155,642,000  
Computer Services Revenue:  
\$146,000,000\*

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### THE COMPANY

- Intergraph, incorporated in Alabama in 1969 as M&S Computing, Inc., designs, manufactures, sells, and supports turnkey computer-aided design/computer-aided manufacturing (CAD/CAM) interactive graphics systems. The company also provides professional services and engineering consulting.
- In April 1981 Intergraph made an initial public offering of 1.5 million shares of common stock. Net proceeds of approximately \$28 million were used to retire all short-term financing, provide working capital for the expansion of inventory accounts receivable, and expand foreign markets.
- 1982 revenue reached \$155.6 million, a 71% increase over 1981 revenue of \$91.1 million. Net income rose 57% from \$8.3 million in 1981 to \$13 million in 1982. A five-year financial summary follows:

\*INPUT estimate

INTERGRAPH CORPORATION

INTERGRAPH CORPORATION  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)

FISCAL YEAR ITEM	1982	1981	1980	1979	1978
Revenue	\$ 155,642	\$ 91,097	\$ 56,469	\$ 29,518	\$ 20,146
• Percent increase from previous year	71%	61%	91%	47%	121%
Income before taxes	\$ 25,254	\$ 16,226	\$ 8,360	\$ 4,417	\$ 2,614
• Percent increase from previous year	56%	94%	89%	69%	71%
Net income	\$ 13,004	\$ 8,268	\$ 4,580	\$ 2,476	\$ 1,356
• Percent increase from previous year	57%	81%	85%	83%	239%
Earnings per share (a)	\$ 0.56	\$ 0.37	\$ 0.25	\$ 0.15	\$ 0.09
• Percent increase from previous year	51%	48%	67%	67%	200%

(a) Restated to reflect a two-for-one stock split effective February 9, 1983.

- Management attributes the company's growth to the early conversion to a 32-bit graphics data base, products based on DEC VAX computers, support of third-party software, customer acceptance of applications software, and technical refinements of display quality.
- The company's marketing expenses increased 113% from \$8.4 million in 1981 to \$17.8 million in 1982.
- Research and product development expenditures for 1982 were \$19.7 million (13% of revenue) as compared to nearly \$12 million (13% of revenue) during 1981 and \$6.2 million (11% of revenue) during 1980. These expenditures are expected to exceed \$25 million for 1983.
- In February 1983 Intergraph made a public offering of two million shares of common stock. Estimated net proceeds of \$57.4 million will be added to the company's working capital.
- Revenue for the six months ending June 30, 1983 reached \$100.2 million, a 61% increase over \$62.3 million for the same period in 1982. Net income rose 179%, from \$3.9 million in 1982 to nearly \$11 million in 1983.
- Intergraph performs engineering and consulting services, principally for the U.S. government, through its Federal Systems Division.

# FINANCIAL UPDATE TO HIGHLIGHT DATED AUGUST 1983

**INTERGRAPH CORPORATION**  
One Madison Industrial Park  
Huntsville, AL 35807  
(205) 772-2000

James W. Meadlock, Chairman and  
President  
Public Corporation, OTC  
Total Employees: 2,501  
Total Revenue, Fiscal Year End  
12/31/83: \$252,014,000

## INTERGRAPH CORPORATION FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

ITEM \ FISCAL YEAR	1983	1982	1981	1980	1979
Revenue	\$ 252,014	\$ 155,642	\$ 91,097	\$ 56,469	\$ 29,518
• Percent increase from previous year	62%	71%	61%	91%	47%
Income before taxes	\$ 57,792	\$ 25,254	\$ 16,226	\$ 8,360	\$ 4,417
• Percent increase from previous year	129%	56%	94%	89%	69%
Net income	\$ 29,342	\$ 13,004	\$ 8,268	\$ 4,580	\$ 2,476
• Percent increase from previous year	126%	57%	81%	85%	83%
Earnings per share (a)	\$ 1.16	\$ 0.56	\$ 0.37	\$ 0.25	\$ 0.15
• Percent increase from previous year	107%	51%	48%	67%	67%

(a) Restated to reflect a two-for-one stock split effective February 9, 1983.

## SOURCE OF REVENUE

- Intergraph reports its revenue in two categories: sales, which includes turnkey systems and professional services revenue, and service and equipment rentals, which includes maintenance revenue. A three-year summary by source of revenue follows (\$ thousands):

ITEM \ FISCAL YEAR	1983	1982	1981
Sales			
• Revenue	\$ 220,560	\$ 138,040	\$ 80,767
- Percent of total	88%	89%	89%
Service and equipment			
• Revenue	\$ 31,454	\$ 17,602	\$ 10,330
- Percent of total	12%	11%	11%
Total Revenue	\$ 252,014	\$ 155,642	\$ 91,097

## INTERGRAPH CORPORATION

- As of December 31, 1982, Intergraph had 1,800 employees. There are now 2,174 employees, segmented as follows:

Marketing/sales	293
Customer support	1,088
Research and development	275
General and administrative	410
Federal Systems Division	108
	<u>2,174</u>

- Intergraph considers its principal competitors to be Applicon, Auto-trol Technology Corporation, Calma, Computervision Corporation, and McDonnell Douglas Automation Company.

### KEY PRODUCTS AND SERVICES

- Intergraph reports its revenue in two categories: sales, which includes turnkey systems and professional services revenue; and service and equipment rentals, which includes maintenance revenue. A three-year summary by source of revenue follows (\$ thousands):

ITEM \ FISCAL YEAR	1982	1981	1980
Sales			
. Revenue	\$ 138,040	\$80,767	\$51,034
- Percent of total	89%	89%	90%
Service and equipment			
. Revenue	\$ 17,602	\$10,330	\$5,435
- Percent of total	11%	11%	10%
Total Revenue	\$ 155,642	\$91,097	\$56,469

- INPUT estimates that 84% of Intergraph's 1982 revenue was derived from turnkey systems, 8% from related maintenance services, and 2% from professional services. An estimated 6% of revenue was derived from non-computer engineering services and equipment rentals.
- Intergraph currently has over 750 turnkey CAD/CAM systems installed worldwide. These DEC minicomputer-based interactive systems provide creation, maintenance, and display of drawings, maps, and diagrams while simultaneously managing a data base of visual data attributes.
- Intergraph systems are configured to meet individual customer requirements.
  - The hardware components of each system include:
    - A DEC central processor.
    - A File Processor.
    - A Graphics Processor.

## INTERGRAPH CORPORATION

- Microprocessors to distribute intelligence and processing functions.
  - Tailored applications menus.
  - Dual-screen raster workstations.
  - The banded vector-to-raster converter.
- Intergraph systems are based on DEC's PDP-11 16-bit and VAX 32-bit computers running under RSX-11M and VMS. Pricing is for the complete turnkey system, including software. All Intergraph software packages run on all hardware configurations, with the exception of the Innovator.
  - The Intergraph 751, based on the VAX-11/750, ranges in price from \$260,000 to \$400,000.
  - The Intergraph 780, based on the VAX-11/780, ranges in price from \$366,000 to over \$500,000.
  - The Intergraph 730, based on the VAX-11/780 and introduced in 1983, ranges in price from \$161,000 to \$250,000.
  - The Innovator system, introduced in 1983, is based on the PDP-11/23 and is available for architectural and mechanical design. It includes a subset of functions available on the larger systems. A typical configuration is priced at approximately \$75,000.
- Intergraph has developed two proprietary software systems that provide the graphics and data base capabilities for its turnkey products as well as systems software for various other functions.
  - Interactive Graphics Design Software (IGDS) provides fundamental graphics element creation, maintenance, and display functions via graphics workstations. IGDS supports both two- and three-dimensional graphics.
  - Data Management and Retrieval System (DMRS) is responsible for attribute, or non-graphics, data management. The system includes a comprehensive report writer used to produce reports and format data, interactive query facilities, and a built-in SORT feature.
  - Intergraph provides additional systems software for translating data to Intergraph formats, inputting large volumes of text into graphics and attribute files, communicating with other computer systems, providing support for various models of electrostatic and pen plotters (both on-line and off-line), and producing computer output microfilm.

## INTERGRAPH CORPORATION

- Intergraph turnkey systems have been developed for the following applications areas:
  - Land use and resource management.
    - Modules available include polygon processing, grid data utilities, digital terrain modeling, and civil engineering.
    - Customers include military and civilian mapping agencies, local governments managing land records and conducting tax appraisal operations, forest product companies, and other firms managing large land tracts and performing resource studies.
  - General cartography.
    - Modules available include data collection interfaces, coordinate transformations, map projections, and general mapping utilities.
    - The Intergraph World Mapping System software allows mapping data from any one of nine different projections to be entered into a common data base. New maps can then be produced in any of the supported projections with varying symbology as a function of scale.
    - Mapping data can be entered through direct digitizing of existing maps, from electronic survey instruments, and from a raster scanner.
  - Utility facility management.
    - Intergraph has specialized its interactive graphics and data base management capabilities for power, gas, and telephone companies and local government users to automate record keeping.
    - The software maintains information on in-field equipment and generates project maps and equipment reports supporting route maintenance and long-range planning tasks.
  - Plant design.
    - The Plant Design System includes features for process schematic generation, equipment modeling, structural steel design and analysis, piping design, and piping isometric extraction.
    - Designers are provided with a series of system libraries from which they can access pre-programmed components and specifications as well as automatic algorithms used to produce three-dimensional models with shading and hidden line suppression.

## INTERGRAPH CORPORATION

- The system is marketed to the chemical, petroleum, and power generation industries.
- Energy exploration.
  - Applications available include the analysis of subsurface exploration data, exploration mapping, well log edit/evaluation, seismic data evaluation, and lease management.
- Architecture.
  - The Architecture and Engineering Design System, introduced in 1982, provides architectural modeling, architectural and engineering production drawings, and space planning/facilities management applications.
- Mechanical design.
  - The Mechanical Design and Manufacturing System automates the product design and development cycle and offers design postprocessing programs which create links to numerically controlled machine tools.
  - The system currently offers three-dimensional design capabilities with functions for section and mass properties calculations, surface modeling, sculptured surface design, solids modeling, finite element modeling, flat pattern development, and numerical control (NC) programming.
  - Intergraph's software can be used with third-party analysis programs such as NASTRAN and STRUDL for stress simulation.
  - Enhancements in sculptured surface design, finite element modeling, NC programming, solids modeling, and kinematics will be made during 1983.
- Electronics design.
  - The Intergraph Electronics Design System is used by customers in the electronics industry to produce printed circuit (PC) and Multiwire® (a registered trademark of Kollmorgen Corporation) boards.
  - The system provides for gate array design. Recent enhancements include automatic package placement and routing.
  - Third-party software is available for the analysis of routing density, thermal effects, logic and circuit simulation, and PC test generation.



## INTERGRAPH CORPORATION

- The system generates a bill of materials and tapes for NC machines used in circuit board manufacturing.
- Intergraph systems repair is covered by 30-day warranties and maintenance agreements to which the majority of users subscribe.
  - The company employs approximately 500 engineers and technical specialists in its sales, service, and field locations to provide customer assistance, maintenance, and training.
- During 1983 Intergraph plans to deliver the following products:
  - The Intergraph designed and manufactured Graphics Processor will offload frequent graphics computations for the Intergraph 751 and 780 systems.
  - The Intergraph 730, based on the VAX-11/730, is a low-end price addition to the Intergraph VAX family of systems. The system is priced at \$145,000 with a monochromatic workstation and \$165,000 with a color workstation.
  - A new version of the 68000-based graphics workstation will offer enhanced ergonomic design.
  - A full-function engineering desktop terminal workstation is designed for office use.
  - Interpage<sup>T.M.</sup>, a software product designed for use on Intergraph's VAX-based systems, will merge text and graphics for technical documentation page make-up.
  - New software will support optically-scanned graphic input data.
- Professional services provided by Intergraph include consulting, systems engineering, and software engineering support.

### INDUSTRY MARKETS

- Intergraph's 1982 revenue was derived primarily from Fortune 1000 companies in the discrete and process manufacturing, petrochemical, geophysical, utilities, architectural, and engineering industry sectors as well as state transportation and federal government agencies.

### GEOGRAPHIC MARKETS

- Intergraph's 1982 revenue was derived as follows:

U.S.	67%
Western Europe	18
Other	<u>15</u>
	100%

## INTERGRAPH CORPORATION

- U.S. offices are located by regions as follows:
  - West Coast: Irvine, Larkspur, and San Jose (CA) and Seattle.
  - Western: Englewood (CO), Metairie (LA), Oklahoma City, Dallas, and Houston.
  - Midwest: Schaumburg (IL), Merrillville (IN), Birmingham (MI), Lansing, Minnetonka (MN), Chesterfield (MO), Cleveland, and Dayton.
  - Southeast: Birmingham, Fort Lauderdale, Winter Park (FL), Atlanta, Charlotte, and Nashville.
  - Northeast: Bridgeport, Boston, Framingham (MA), Churchville (NY), Lyndhurst (NJ), Pittsburgh and King of Prussia (PA), and McLean (VA).
- Intergraph has wholly owned foreign subsidiaries in Germany, Holland, the United Kingdom, France, Sweden, Spain, Brazil, and Singapore. Majority owned or effectively controlled subsidiaries are in Australia, Mexico, Venezuela, and Bahrain.
  - An Intergraph affiliate is responsible for sales and service in Canada. Distributors sell and service equipment in Saudi Arabia, Indonesia, Japan, Korea, and South Africa.

## COMPUTER HARDWARE AND SOFTWARE

- Intergraph has the following computers installed at its headquarters:
  - 4 DEC VAX-11/730s, VMS.
  - 12 DEC VAX-11/750s, VMS.
  - 17 DEC VAX-11/780s, VMS.

# FINANCIAL UPDATE TO HIGHLIGHT DATED AUGUST 1983

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• Percent increase from previous year	62%	71%	61%	91%	47%
Income before taxes	\$ 57,792	\$ 25,254	\$ 16,226	\$ 8,360	\$ 4,417
• Percent increase from previous year	129%	56%	94%	89%	69%
Net income	\$ 29,342	\$ 13,004	\$ 8,268	\$ 4,580	\$ 2,476
• Percent increase from previous year	126%	57%	81%	85%	83%
Earnings per share (a)	\$ 1.16	\$ 0.56	\$ 0.37	\$ 0.25	\$ 0.15
• Percent increase from previous year	107%	51%	48%	67%	67%

(a) Restated to reflect a two-for-one stock split effective February 9, 1983.

## SOURCE OF REVENUE

- Intergraph reports its revenue in two categories: sales, which includes turnkey systems and professional services revenue, and service and equipment rentals, which includes maintenance revenue. A three-year summary by source of revenue follows (\$ thousands):

ITEM \ FISCAL YEAR	1983	1982	1981
Sales			
• Revenue	\$ 220,560	\$ 138,040	\$ 80,767
- Percent of total	88%	89%	89%
Service and equipment			
• Revenue	\$ 31,454	\$ 17,602	\$ 10,330
- Percent of total	12%	11%	11%
Total Revenue	\$ 252,014	\$ 155,642	\$ 91,097

## COMPANY HIGHLIGHT

INTERGRAPH CORPORATION  
One Madison Industrial Park  
Huntsville, AL 35807  
(205) 772-2000

James W. Meadlock, Chairman and  
President  
Public Corporation, OTC  
Total Employees: 1,800  
Total Revenue, Fiscal Year End  
12/31/82: \$155,642,000  
Computer Services Revenue:  
\$146,000,000\*

---

### THE COMPANY

- Intergraph, incorporated in Alabama in 1969 as M&S Computing, Inc., designs, manufactures, sells, and supports turnkey computer-aided design/computer-aided manufacturing (CAD/CAM) interactive graphics systems. The company also provides professional services and engineering consulting.
- In April 1981 Intergraph made an initial public offering of 1.5 million shares of common stock. Net proceeds of approximately \$28 million were used to retire all short-term financing, provide working capital for the expansion of inventory accounts receivable, and expand foreign markets.
- 1982 revenue reached \$155.6 million, a 71% increase over 1981 revenue of \$91.1 million. Net income rose 57% from \$8.3 million in 1981 to \$13 million in 1982. A five-year financial summary follows:

\*INPUT estimate

INTERGRAPH CORPORATION

INTERGRAPH CORPORATION  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)

FISCAL YEAR ITEM	1982	1981	1980	1979	1978
Revenue	\$ 155,642	\$ 91,097	\$ 56,469	\$ 29,518	\$ 20,146
• Percent increase from previous year	71%	61%	91%	47%	121%
Income before taxes	\$ 25,254	\$ 16,226	\$ 8,360	\$ 4,417	\$ 2,614
• Percent increase from previous year	56%	94%	89%	69%	71%
Net income	\$ 13,004	\$ 8,268	\$ 4,580	\$ 2,476	\$ 1,356
• Percent increase from previous year	57%	81%	85%	83%	239%
Earnings per share (a)	\$ 0.56	\$ 0.37	\$ 0.25	\$ 0.15	\$ 0.09
• Percent increase from previous year	51%	48%	67%	67%	200%

(a) Restated to reflect a two-for-one stock split effective February 9, 1983.

- Management attributes the company's growth to the early conversion to a 32-bit graphics data base, products based on DEC VAX computers, support of third-party software, customer acceptance of applications software, and technical refinements of display quality.
- The company's marketing expenses increased 113% from \$8.4 million in 1981 to \$17.8 million in 1982.
- Research and product development expenditures for 1982 were \$19.7 million (13% of revenue) as compared to nearly \$12 million (13% of revenue) during 1981 and \$6.2 million (11% of revenue) during 1980. These expenditures are expected to exceed \$25 million for 1983.
- In February 1983 Intergraph made a public offering of two million shares of common stock. Estimated net proceeds of \$57.4 million will be added to the company's working capital.
- Revenue for the six months ending June 30, 1983 reached \$100.2 million, a 61% increase over \$62.3 million for the same period in 1982. Net income rose 179%, from \$3.9 million in 1982 to nearly \$11 million in 1983.
- Intergraph performs engineering and consulting services, principally for the U.S. government, through its Federal Systems Division.

## INTERGRAPH CORPORATION

- As of December 31, 1982, Intergraph had 1,800 employees. There are now 2,174 employees, segmented as follows:

Marketing/sales	293
Customer support	1,088
Research and development	275
General and administrative	410
Federal Systems Division	108
	<u>2,174</u>

- Intergraph considers its principal competitors to be Applicon, Auto-trol Technology Corporation, Calma, Computervision Corporation, and McDonnell Douglas Automation Company.

### KEY PRODUCTS AND SERVICES

- Intergraph reports its revenue in two categories: sales, which includes turnkey systems and professional services revenue; and service and equipment rentals, which includes maintenance revenue. A three-year summary by source of revenue follows (\$ thousands):

ITEM	FISCAL YEAR		
	1982	1981	1980
Sales			
. Revenue	\$ 138,040	\$80,767	\$51,034
- Percent of total	89%	89%	90%
Service and equipment			
. Revenue	\$ 17,602	\$10,330	\$5,435
- Percent of total	11%	11%	10%
Total Revenue	\$ 155,642	\$91,097	\$56,469

- INPUT estimates that 84% of Intergraph's 1982 revenue was derived from turnkey systems, 8% from related maintenance services, and 2% from professional services. An estimated 6% of revenue was derived from non-computer engineering services and equipment rentals.
- Intergraph currently has over 750 turnkey CAD/CAM systems installed worldwide. These DEC minicomputer-based interactive systems provide creation, maintenance, and display of drawings, maps, and diagrams while simultaneously managing a data base of visual data attributes.
- Intergraph systems are configured to meet individual customer requirements.
  - The hardware components of each system include:
    - A DEC central processor.
    - A File Processor.
    - A Graphics Processor.

- Microprocessors to distribute intelligence and processing functions.
  - Tailored applications menus.
  - Dual-screen raster workstations.
  - The banded vector-to-raster converter.
- Intergraph systems are based on DEC's PDP-11 16-bit and VAX 32-bit computers running under RSX-11M and VMS. Pricing is for the complete turnkey system, including software. All Intergraph software packages run on all hardware configurations, with the exception of the Innovator.
  - The Intergraph 751, based on the VAX-11/750, ranges in price from \$260,000 to \$400,000.
  - The Intergraph 780, based on the VAX-11/780, ranges in price from \$366,000 to over \$500,000.
  - The Intergraph 730, based on the VAX-11/780 and introduced in 1983, ranges in price from \$161,000 to \$250,000.
  - The Innovator system, introduced in 1983, is based on the PDP-11/23 and is available for architectural and mechanical design. It includes a subset of functions available on the larger systems. A typical configuration is priced at approximately \$75,000.
- Intergraph has developed two proprietary software systems that provide the graphics and data base capabilities for its turnkey products as well as systems software for various other functions.
  - Interactive Graphics Design Software (IGDS) provides fundamental graphics element creation, maintenance, and display functions via graphics workstations. IGDS supports both two- and three-dimensional graphics.
  - Data Management and Retrieval System (DMRS) is responsible for attribute, or non-graphics, data management. The system includes a comprehensive report writer used to produce reports and format data, interactive query facilities, and a built-in SORT feature.
  - Intergraph provides additional systems software for translating data to Intergraph formats, inputting large volumes of text into graphics and attribute files, communicating with other computer systems, providing support for various models of electrostatic and pen plotters (both on-line and off-line), and producing computer output microfilm.



## INTERGRAPH CORPORATION

- Intergraph turnkey systems have been developed for the following applications areas:
  - Land use and resource management.
    - Modules available include polygon processing, grid data utilities, digital terrain modeling, and civil engineering.
    - Customers include military and civilian mapping agencies, local governments managing land records and conducting tax appraisal operations, forest product companies, and other firms managing large land tracts and performing resource studies.
  - General cartography.
    - Modules available include data collection interfaces, coordinate transformations, map projections, and general mapping utilities.
    - The Intergraph World Mapping System software allows mapping data from any one of nine different projections to be entered into a common data base. New maps can then be produced in any of the supported projections with varying symbology as a function of scale.
    - Mapping data can be entered through direct digitizing of existing maps, from electronic survey instruments, and from a raster scanner.
  - Utility facility management.
    - Intergraph has specialized its interactive graphics and data base management capabilities for power, gas, and telephone companies and local government users to automate record keeping.
    - The software maintains information on in-field equipment and generates project maps and equipment reports supporting route maintenance and long-range planning tasks.
  - Plant design.
    - The Plant Design System includes features for process schematic generation, equipment modeling, structural steel design and analysis, piping design, and piping isometric extraction.
    - Designers are provided with a series of system libraries from which they can access pre-programmed components and specifications as well as automatic algorithms used to produce three-dimensional models with shading and hidden line suppression.

## INTERGRAPH CORPORATION

- The system is marketed to the chemical, petroleum, and power generation industries.
- Energy exploration.
  - Applications available include the analysis of subsurface exploration data, exploration mapping, well log edit/evaluation, seismic data evaluation, and lease management.
- Architecture.
  - The Architecture and Engineering Design System, introduced in 1982, provides architectural modeling, architectural and engineering production drawings, and space planning/facilities management applications.
- Mechanical design.
  - The Mechanical Design and Manufacturing System automates the product design and development cycle and offers design postprocessing programs which create links to numerically controlled machine tools.
  - The system currently offers three-dimensional design capabilities with functions for section and mass properties calculations, surface modeling, sculptured surface design, solids modeling, finite element modeling, flat pattern development, and numerical control (NC) programming.
  - Intergraph's software can be used with third-party analysis programs such as NASTRAN and STRUDL for stress simulation.
  - Enhancements in sculptured surface design, finite element modeling, NC programming, solids modeling, and kinematics will be made during 1983.
- Electronics design.
  - The Intergraph Electronics Design System is used by customers in the electronics industry to produce printed circuit (PC) and Multiwire® (a registered trademark of Kollmorgen Corporation) boards.
  - The system provides for gate array design. Recent enhancements include automatic package placement and routing.
  - Third-party software is available for the analysis of routing density, thermal effects, logic and circuit simulation, and PC test generation.

## INTERGRAPH CORPORATION

- The system generates a bill of materials and tapes for NC machines used in circuit board manufacturing.
- Intergraph systems repair is covered by 30-day warranties and maintenance agreements to which the majority of users subscribe.
  - The company employs approximately 500 engineers and technical specialists in its sales, service, and field locations to provide customer assistance, maintenance, and training.
- During 1983 Intergraph plans to deliver the following products:
  - The Intergraph designed and manufactured Graphics Processor will offload frequent graphics computations for the Intergraph 751 and 780 systems.
  - The Intergraph 730, based on the VAX-11/730, is a low-end price addition to the Intergraph VAX family of systems. The system is priced at \$145,000 with a monochromatic workstation and \$165,000 with a color workstation.
  - A new version of the 68000-based graphics workstation will offer enhanced ergonomic design.
  - A full-function engineering desktop terminal workstation is designed for office use.
  - Interpage<sup>T.M.</sup>, a software product designed for use on Intergraph's VAX-based systems, will merge text and graphics for technical documentation page make-up.
  - New software will support optically-scanned graphic input data.
- Professional services provided by Intergraph include consulting, systems engineering, and software engineering support.

### INDUSTRY MARKETS

- Intergraph's 1982 revenue was derived primarily from Fortune 1000 companies in the discrete and process manufacturing, petrochemical, geophysical, utilities, architectural, and engineering industry sectors as well as state transportation and federal government agencies.

### GEOGRAPHIC MARKETS

- Intergraph's 1982 revenue was derived as follows:

U.S.	67%
Western Europe	18
Other	<u>15</u>
	100%

## INTERGRAPH CORPORATION

- U.S. offices are located by regions as follows:
  - West Coast: Irvine, Larkspur, and San Jose (CA) and Seattle.
  - Western: Englewood (CO), Metairie (LA), Oklahoma City, Dallas, and Houston.
  - Midwest: Schaumburg (IL), Merrillville (IN), Birmingham (MI), Lansing, Minnetonka (MN), Chesterfield (MO), Cleveland, and Dayton.
  - Southeast: Birmingham, Fort Lauderdale, Winter Park (FL), Atlanta, Charlotte, and Nashville.
  - Northeast: Bridgeport, Boston, Framingham (MA), Churchville (NY), Lyndhurst (NJ), Pittsburgh and King of Prussia (PA), and McLean (VA).
- Intergraph has wholly owned foreign subsidiaries in Germany, Holland, the United Kingdom, France, Sweden, Spain, Brazil, and Singapore. Majority owned or effectively controlled subsidiaries are in Australia, Mexico, Venezuela, and Bahrain.
  - An Intergraph affiliate is responsible for sales and service in Canada. Distributors sell and service equipment in Saudi Arabia, Indonesia, Japan, Korea, and South Africa.

## COMPUTER HARDWARE AND SOFTWARE

- Intergraph has the following computers installed at its headquarters:
  - 4 DEC VAX-11/730s, VMS.
  - 12 DEC VAX-11/750s, VMS.
  - 17 DEC VAX-11/780s, VMS.

# FINANCIAL UPDATE TO PROFILE DATED JULY 1986

INTERLEAF, INC.  
Ten Canal Park  
Cambridge, MA 02141  
(617) 577-9800

David A. Boucher, President and CEO  
Public Corporation, OTC  
Total Employees: 355  
Total Revenue, Fiscal Year End  
3/31/87: \$37,173,162

## INTERLEAF, INC. FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

Item \ Fiscal Year	3/87	3/86	3/85	3/84	3/83
Revenue	\$ 37,173	\$ 18,646	\$ 8,334	\$ 319	\$ 6
• Percent change from previous year	99%	124%	*	*	600%
Income (loss) before taxes	\$ (410)	\$ (2,243)	\$ (1,629)	\$ (1,461)	\$ (329)
• Percent change from previous year	82%	(38%)	(11%)	(344%)	(961%)
Net income (loss)	\$ (410)	\$ (2,443)	\$ (1,629)	\$ (1,461)	\$ (329)
• Percent change from previous year	83%	(50%)	(11%)	(344%)	(961%)
Earnings (loss) per share	\$ (0.04)	\$ (0.58)	\$ (0.39)	\$ (0.59)	\$ (0.16)
• Percent change from previous year	93%	(49%)	66%	(269%)	(700%)

\* Percent change exceeds 1,000%.

- Revenue for the six months ending September 30, 1987 was \$23.3 million, a 55% increase over \$15 million for the same period in 1986. Net income reached \$2 million (including a \$530,000 tax benefit from utilization of tax-loss carryforward), compared to a net loss of \$1.4 million for the same period a year ago.
- The beginning of fiscal 1988 saw a shift in Interleaf's product mix from bundled systems, consisting of hardware and software, to software only, thus strengthening gross margins.

## SOURCE OF REVENUE

- Approximately 82% of fiscal 1987 revenue was derived from turnkey system sales and 9% was derived from software license fees. The remaining 9% was derived from maintenance services and other sources. A three-year source of revenue summary follows (\$ thousands):

Fiscal Year Item	3/87		3/86		3/85	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Turnkey systems	\$30,553	82%	\$14,106	76%	\$4,844	58%
Software licenses and royalty revenue	3,287	9	3,357	18	3,348	40
Service	2,581	7	708	4	71	1
Other	752	2	474	2	72	1
Total	\$37,173	100%	\$18,646	100%	\$8,335	100%

- Approximately 92% of fiscal 1987 revenue was derived from the U.S. and 8% from foreign customers.

# Vendor Profile

A Publication from INPUT's Vendor Analysis Program

December 1997

## Interim Technology (UK) Limited — SAP Services

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### Contact Information:

Arthur Evans  
SAP Practice Manager  
Tel: 0181 660 1177

Interim Technology (UK) Limited  
Nordic House 120 High Street  
Purley, Surrey  
CR8 2AD  
England  
<http://www.interim.com>

*The following profile outlines the services and support offered by Interim Technology to its clients for SAP services in the UK.*

---

### **Company Background**

Interim Technology is a division of the US-based Interim Services Inc. — a \$1.4 billion consulting, staffing and health care services company with 900 offices in the US, Canada and the U.K. During 1995, Interim Services acquired three IT services companies and formed a dedicated business unit to service this market. The unit, Interim Technology, has more than 50 offices throughout the US and the United Kingdom.

Interim Technology (Interim) comprises two groups:

- Staffing Solutions Group (formerly Brandon Systems Corp.) which specializes in project management and supplemental IT staffing in the US, and
- The Consulting Group, formed by the acquisition of Computer Power Group. The Consulting Group has 2,000 staff and specializes in areas such as software quality management, client/server support, management consulting, Year 2000, and SAP services.

### SAP Activities

#### *Relationship with SAP AG*

Interim entered the market for SAP consulting and implementation in October 1993. The company is a Logo Partner in the U.K. which is its strongest SAP market.

Interim is further a partner of JBA Holding.

#### Employees

Interim has 43 SAP professionals worldwide. Only 12 of these professionals are based outside the UK with 8 employees in the US and 4 in Europe.

Interim's functional experts all have in excess of two years SAP implementation experience and in-depth knowledge of the business areas supported by SAP Services.

Interim's underlying approach to consulting is defined in its TDSS (Technologies for the Delivery of Software and Services). An adapted version of TDSS has been developed specifically for SAP R/3. TDSS-R/3 is a set of skills, methodologies and tools which are used in planning and monitoring R/3 projects.

Interim offers the full scope of services necessary for achieving the maximum benefits of a SAP implementation:

- Business process modeling and reengineering
- Development of Organizational change management program
- ABAP programming
- Prototyping of R/3 systems

- User training.

Interim Technology has developed a Software Quality Management (SQM) product which has been adapted specifically for SAP R/3. SQM-R/3, which ensures integrity of the data and system infrastructure in an R/3 project, is unique in the R/3 environment.

Although Interim is a SAP Logo Partner, the company will offer un-biased advice to clients when evaluating alternative software solutions against business processes.

### Industry Knowledge And References

Since Interim entered the SAP market three years ago the company has provided consultancy and services to 39 companies worldwide representing most vertical markets. However, Interim has the highest expertise in the Banking and Finance, Retail, Oil and Manufacturing markets as illustrated in Exhibit 2.

Interim is aiming to increase its market involvement in the Retail market.

#### Objectives

Interim Technology has an established IBM AS/400 consulting practice where it partners with JBA Holdings. This practice is now merging with the SAP practice to offer full capability to future AS/400 signings. Interim has already been involved in Windows NT projects and is capable of full services in this area. Both AS/400 and Windows NT target the middle-sized company to which Interim is making its SAP services available in a scaled-down version, in terms of length of implementation and cost.



SAP has developed new offerings for the retail industry. With its expertise in retail Interim is positioned to expand its activities in this field, particularly to the many companies just below the top echelon.

An important part of Interim's work is knowledge transfer to the client in general terms and through training. Interim aims to put the expertise and experience in the

client's hands and to allow the client to operate independently once the project is completed. Knowledge transfer is crucial since the inherent tools in SAP are not sufficient for the client's employees to cope after the implementation has finished and the SAP consultant has left. Interim considers it its role to ensure that the client's employees become the SAP consultants to the company without equal.

Exhibit 1

## Vertical Market Involvement

Vertical Market	Consulting	Implementation
Finance	High	Medium
Retail	Medium	Medium
Utilities	Low	Low
Communications	Low	Low
Transport	Low	Low
Business Services	Medium	Low
Discrete Manufacturing	High	High
Process Manufacturing	High	High

Source: Interim Technology

## INPUT Vendor Profile

Exhibit 2

### SAP Activity By Revenue And Vertical Market

Vertical Market	Sub-segment	% of Revenues	% of Projects
Finance	Banking, Insurance, Brokers Investment Management	17	3
Retail	Food, non-food, Wholesale, Distribution, Leisure, Travel Agents, Mail Order	16	21
Utilities		4	1
Communications	Telecommunications, Media	5	1
Business Services		9	2
Discrete Manufacturing	Automotive, Aerospace, Electrical & Electronic, Mechanical Engineering, etc.	23	34
Process Manufacturing	Food & Drink, Pharmaceuticals, Chemicals, etc.	18	38

Exhibit 3

### Selected Customer Projects

Customer	Industry	Project Details
Morgan Grenfel, UK	Banking	R/3 implementation. FI and CO modules
Roche Products, UK and Switzerland	Process Manufacturing	R/3 implementation Full suite of modules
Lego UK	Discrete Manufacturing	R/3 implementation. MM/SD implementation with financial integration and logistics-driven
Total Oil Marine, UK	Process Manufacturing	R/3 implementation. Full suite of modules IS-Oil played and integral part
BBC UK	Communications	R/3 implementation. FI and CO modules

Source: Interim Technology

Exhibit 3 on the preceding page details a selection of Interim Technology's major SAP projects in Europe.

Interim has worked with some very large UK and international companies. These include:

- BBC
- Mercury Communications
- Courage
- Procter & Gamble
- General Electric
- Roche Products
- Lego UK
- Total Oil
- Mars
- Unilever

### **Strategic Positioning**

#### ***Special Strengths***

Interim Technology considers that its unique strengths against other SAP Logo Partners are:

- Systems security expertise — 3-tier client/server, EDI, Internet
- Independent software quality management
- Versatility — ability to cover all industries
- Flexibility — ability to handle both the complexity of global implementation and offer fast-track implementation for the middle market with no compromise on standards.



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## COMPANY PROFILE

---

**INTERLEAF, INC.**  
Ten Canal Park  
Cambridge, MA 01241  
(617) 577-9800

David A. Boucher, Chairman and CEO  
Robert K. Weiler, President  
Public Corporation, NASDAQ  
Total Employees: 762 (3/89)  
Total Revenue, Fiscal Year End  
3/31/89: \$82,780,181

---

### The Company

Interleaf, Inc., founded in 1981, currently develops and markets software products for electronic publishing applications and provides associated systems integration services.

In November 1989, Interleaf announced a major restructuring that exited the company from the turnkey systems part of its business and refocused Interleaf on its major growth and value-added businesses of software and services. As part of the restructuring, Interleaf announced the following changes:

- The company will resell hardware only as part of systems integration services.
- DEC will assume support of Interleaf's hardware maintenance customers.
- Interleaf will streamline its operations and reallocate resources to its Systems Integration group.
- As a result of these changes, the company has reduced its domestic workforce by approximately 135 (18% of its U.S. employees) and expects to incur restructuring costs of approximately \$13.5 million for the third quarter of fiscal 1990.

Interleaf's fiscal 1989 revenue reached \$82.8 million, a 42% increase over fiscal 1988 revenue of \$58.4 million. Net income declined 88%, from nearly \$7 million in fiscal 1988 to \$863,000 in fiscal 1989. A five-year financial summary follows:

**INTERLEAF, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	3/89	3/88	3/87	3/86	3/85
Revenue	\$82,780	\$58,389	\$37,173	\$18,646	\$8,334
• Percent increase from previous year	42%	57%	99%	124%	*
Income (loss) before taxes	\$1,528	\$7,830	\$(410)	\$(2,243)	\$(1,629)
• Percent change from previous year	(80%)	*	82%	(38%)	(11%)
Net income (loss)	\$863	\$6,980	\$(410)	\$(2,443)	\$(1,629)
• Percent change from previous year	(88%)	(a) *	83%	(50%)	(11%)
Earnings (loss) per share	\$0.07	\$0.59	\$(0.04)	\$(0.58)	\$(0.39)
• Percent change from previous year	(88%)	*	93%	(49%)	66%

\* Percent change exceeds 1,000%.

(a) Includes an extraordinary credit of \$1.4 million, or \$0.12 per share, from use of net operating loss carryforwards.

Interleaf management attributes revenue growth to expansion of the company's domestic and foreign sales operations, resulting in increased unit sales as well as increased service revenues reflecting the growing installed base of customers.

- Sales of turnkey systems and software increased 34% during fiscal 1989 and 45% during fiscal 1988. The software-only sales component increased 52% during fiscal 1989 and 293% during fiscal 1988.
- Service revenue increased 83% during fiscal 1989 and 142% during fiscal 1988, reflecting the growing installed base of customers.

Declines in net income during fiscal 1989 were attributed to the following:

- Interleaf committed to expanding its product line to support 386-based microcomputers. Major investments for

development of these products did not begin to pay back as expected in fiscal 1989.

- Because of promotions and management-initiated turnover, the company ended fiscal 1988 with fewer direct sales representatives than planned.
- Gross margins on the sales of systems and software fell to 63% in fiscal 1989 from 69% in fiscal 1988 primarily due to increased competition in the workstation and microcomputer markets. As a result of new product announcements made by Apollo, DEC, and Sun, Interleaf had inventory nearing the end of its product life cycle. An inventory reduction program conducted during the last two quarters of fiscal 1989 enabled the company to sell approximately \$2.2 million of its inventory, but at reduced margins.
- Selling, general, and administrative expenses were \$41 million (50% of revenue) compared to \$25.9 million (44% of revenue) in fiscal 1988. The increase was due primarily to the imbalance between sales management and quota-carrying salespeople.
- Total research and development expenditures were approximately \$10.7 million (13% of revenue) in fiscal 1989, compared to \$7.1 million (12% of revenue) in fiscal 1988, and \$5.6 million (15% of revenue) in fiscal 1987.

Revenue for the nine months ending December 31, 1989 was \$65.9 million, compared to \$56.8 million for the same period in 1988. The company reported a loss of \$16.2 million for the period, which includes a one-time \$13.5 million after-tax restructuring charge as a result of the decision to exit the turnkey systems business.

In September 1989, a group of investors managed and/or advised by Advent International Corporation, an international investment firm, and Compagnie Financiere du Scribe (CFS), a French high-technology investment firm, invested \$15 million in Interleaf. The company created Senior Series B Convertible Preferred Stock, a new class of convertible preferred stock, and issued 2.1 million shares to Advent and CFS.

Acquisitions made by Interleaf include the following:

- In November 1989, Interleaf completed the acquisition of its French affiliate, Interleaf France S.A., for approximately \$7 million. Interleaf France S.A. was a joint venture founded in 1986 by Interleaf and Compagnie Financiere du Scribe to

market and distribute Interleaf software products in France, Belgium, and Switzerland.

- In July 1988, Interleaf acquired Interleaf Canada Inc., the exclusive distributor of the company's products in Canada.

As of March 1989, Interleaf had 762 full-time employees. As of December 1989, the company had 750 employees.

Interleaf's competitors include the following:

- In the technical documentation segment, competitors include Xerox, Xyvision, Mentor Graphics, and Frame Technology.
- In the microcomputer segment, competitors include Aldus, Ashton-Tate, and Microsoft.

#### Key Products and Services

Approximately 72% of Interleaf's fiscal 1989 revenue was derived from turnkey systems and software sales, 14% from maintenance services, and 10% from software royalties and associated fees. The remaining 4% of revenue was derived primarily from training services and sales of user manuals.

A three-year summary of source of revenue follows:

#### INTERLEAF, INC. THREE-YEAR SOURCE OF REVENUE SUMMARY (\$ thousands)

ITEM	FISCAL YEAR					
	3/89		3/88		3/87	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Turnkey systems and software	\$59,346	72%	\$44,157	76%	\$30,553	82%
Maintenance services	11,437	14%	6,240	10%	2,581	7%
Software fees (a)	8,699	10%	6,947	12%	3,287	9%
Other	3,299	4%	1,045	2%	752	2%
<b>TOTAL</b>	<b>\$82,780</b>	<b>100%</b>	<b>\$58,389</b>	<b>100%</b>	<b>\$37,173</b>	<b>100%</b>

(a) Generally includes nonrecurring third-party royalties, porting fees, and revenues from distribution rights.

Interleaf has about 35,000 licensed users of its software products worldwide. The company currently markets and supports the following software products for electronic publishing applications:

- Technical Publishing Software (TPS) Version 4.0 consists of a basic package, TPS CorePlus™, for text processing, graphics creation, and basic document management. Optional modules are available for tables, math equations, photograph image editing, advanced graphics, and advanced document management.
  - TPS is available for Sun, DEC, Apollo, HP, and IBM workstations. TPS CorePlus is priced at \$2,500, with each add-on option averaging approximately \$4,000. TPS CorePlus, combined with all options, is priced at \$15,000.
  - The products are also available in 13 different languages.
- IBM Interleaf Publisher is an integrated text and graphics software package marketed exclusively by IBM for IBM PS/2 computers.
- Interleaf Publisher is a product similar to IBM Interleaf Publisher which operates on the Apple Macintosh II and retails for \$995.
- PCViewstation enables users to view a document that has been prepared by a workstation on the same network using TPS. The product runs on IBM PC AT and compatible computers and is priced at \$895.
- PCEditor enables a user to enter and edit text on a microcomputer and to print pages that are being or will be created by a workstation using TPS. The product retails for \$795.
- The CALS Preparedness Package combines software, training, and support designed to help government contractors meet the Department of Defense's Computer-Aided Acquisition and Logistic Support (CALS) standards.

Interleaf's Systems Integration group works with customers to provide large-scale and specialized solutions and project management for complex publishing environments.

## Industry Markets

Interleaf derives its revenue from across industries.

- The company markets its software primarily to the technical documentation segment of the electronic publishing market, which includes designs, drawings, and manuals for commercial products developed in such industries as aerospace, telecommunications, electronics, and pharmaceuticals.
- For corporate-wide publishing applications, Interleaf markets its products to various corporations, government agencies, professional organizations, educational institutions, banks, insurance companies, investment banking firms, and consulting firms.

### Geographic Markets

Approximately 78% of Interleaf's fiscal 1989 revenue was derived from the U.S. and 22% from international sources.

Interleaf has more than 50 sales offices, subsidiaries, and distributors worldwide.

- In the U.S., Interleaf distributes its TPS products through direct sales. Microcomputer products and TPS CorePlus are sold through value-added resellers (VARs). Interleaf has approximately 1,700 resellers for its microcomputer software products and about 60 TPS VARs. Revenues from VARs contributed \$6.2 million to fiscal 1989 revenue.
- Interleaf markets its products in Canada, the U.K., France, Belgium, Switzerland, and Sweden through its wholly-owned subsidiaries.
- The company also has distributors in Italy, Germany, South America, and Asia.
- Interleaf's TPS software is marketed by DEC to DEC customers in Europe.
- During 1989, Interleaf announced a joint venture with ABS Ventures II Limited (an affiliate of Alex Brown & Sons) to form Interleaf Americas, Ltd., a new company with exclusive rights to market Interleaf's software products in Latin America.

During 1989, Interleaf entered into an agreement with Siemens AG under which Siemens will bundle Interleaf software with every WS-30 workstation.

Also during 1989, Alcatel n.v. announced its selection of Interleaf electronic publishing software as the corporation's international publishing standard.



## COMPANY PROFILE

**INTERLEAF, INC.**  
Ten Canal Park  
Cambridge, MA 02141  
(617) 577-9800

David A. Boucher, President and CEO  
Public Corporation, OTC  
Total Employees: 230  
Total Revenue, Fiscal Year End  
3/31/86: \$18,645,883

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### THE COMPANY

- Interleaf, Inc., incorporated in May 1981, designs, develops, and markets turnkey systems and software for computer-aided publishing (CAP) applications. Interleaf completed a prototype in February 1983 and began beta shipments in September 1983. Volume shipments began in May 1984.
- In June 1986 Interleaf made an initial public offering of three million shares of common stock. Of the shares offered, 2.2 million shares were sold by Interleaf and 800,000 shares by selling stockholders. Net proceeds, estimated at \$20.5 million, will be used for general corporate purposes, principally working capital and product development.
- Revenue for fiscal 1986 reached \$18.6 million, a 124% increase over fiscal 1985 revenue of \$8.3 million. Net losses in fiscal 1986 were \$2.4 million compared to net losses of \$1.6 million in fiscal 1985. A four-year financial summary follows:

INTERLEAF, INC.  
FOUR-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)

ITEM \ FISCAL YEAR	3/86	3/85	3/84	3/83
Revenue	\$ 18,646	\$ 8,334	\$ 319	\$ 6
• Percent change from previous year	124%	*	*	600%
Income (loss) before taxes	\$ (2,243)	\$ (1,629)	\$ (1,461)	\$ (329)
• Percent change from previous year	(38%)	(11%)	(344%)	(961%)
Net income (loss)	\$ (2,443)	\$ (1,629)	\$ (1,461)	\$ (329)
• Percent change from previous year	(50%)	(11%)	(344%)	(961%)
Earnings per share	\$ (0.58)	\$ (0.39)	\$ (0.59)	\$ (0.16)
• Percent change from previous year	(49%)	66%	(269%)	(700%)

\*Percent change exceeds 1,000%

- Product development and engineering expenditures were approximately \$3.5 million (19% of revenue) in fiscal 1986, \$1.7 million (20% of revenue) in fiscal 1985, and \$702,070 (220% of revenue) in fiscal 1984.
- As of April 30, 1986, Interleaf had 221 employees, segmented as follows:
 

Marketing/sales	62
Production and support	68
Research and development	67
General and administrative	<u>24</u>
	221
- Interleaf's major competitors are in two areas of the CAP market as follows:
  - Technical documentation: Eastman Kodak Company (Kodak), Xyvision, Inc., Texus Corporation, Caddex Corporation, and Context Corporation.
  - Kodak markets a turnkey CAP system using Interleaf software only on Sun Microsystems, Inc. workstations.
  - Office publishing: Kodak and Xerox Corporation.

## KEY PRODUCTS AND SERVICES

- Approximately 76% of fiscal 1986 revenue was derived from turnkey system sales and 18% was derived from software license fees. The remaining 6% was derived from maintenance services and other sources. A three-year source of revenue summary follows (\$ thousands):

FISCAL YEAR ITEM	3/86		3/85		3/84	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Turnkey systems	\$ 14,106	76%	\$ 4,844	58%	\$ 79	25%
Software licenses and royalty revenue	3,357	18	3,348	40	200	62
Service	708	4	71	1	-	-
Other	474	2	72	1	41	13
Total	\$18,646	100%	\$8,335	100%	\$319	100%

- Interleaf markets its software products separately or bundled with hardware as turnkey systems. Turnkey systems are available in a network or standalone configuration.
- Interleaf turnkey systems and software include the following features:
  - Integrated text and graphics allow users to enter and edit text in multiple typefaces and integrate the text with graphics including business charts and graphs, diagrams, computer-aided design (CAD) drawings from CAD systems, line art, and photographs.
  - Using a large high-resolution bit-mapped screen, Interleaf's software displays a full page of the document being created as it will appear when printed.
  - An Interleaf system continuously updates, maintains, and displays a document that is paginated and formatted for final output.
  - The systems are menu driven and include a mouse user interface.

- A Structured Document Editor maintains format information including titles, headings, paragraphs, and footnotes.
- Interleaf systems accept standard files stored in word processing systems including those manufactured by Wang Laboratories, Inc. and IBM, and data files created on spreadsheets including Lotus 1-2-3, VisiCalc, Multiplan, and Symphony.
- Turnkey systems are based on Interleaf's two software products.
  - Technical Publishing Software (TPS<sup>TM</sup>) is designed for use by publication departments or groups that require sophisticated composition and pagination features.
    - A TPS turnkey system includes a 32-bit workstation, a bit-mapped screen, a laser printer, and other peripheral devices. TPS is currently available on workstations manufactured by Sun, IBM, DEC, and Apollo Computer, Inc.
    - A TPS turnkey system is priced from \$30,000 to \$120,000 depending on configuration requirements. TPS software license fees range from \$10,000 to \$20,000 depending on the system configuration.
  - Workstation Publishing Software (WPS<sup>TM</sup>) is designed for use by workstation users who do not require all the features available on TPS. The typical WPS user has purchased a workstation for some other primary application and acquires WPS as an ancillary documentation tool.
    - WPS is available on 32-bit workstations from most major manufacturers.
    - The per copy end-user license fee ranges from \$1,995 to \$4,500.
- Since Interleaf began shipment of its products in May 1984, Interleaf has licensed more than 3,000 systems in over 200 locations.

#### INDUSTRY MARKETS

- Approximately 18% of fiscal 1986 revenue was derived from OEM sales. The remaining 72% was derived across industry sectors, including education and government.
- Interleaf markets its products through two distribution channels.
  - Its direct sales force markets turnkey systems and software.

- Major customers include Bell Communications Research, Inc., The Boeing Company, General Electric Company, General Motors Corporation, and Hewlett-Packard Company.
- Interleaf has entered into OEM agreements with IBM for the RT PC, DEC for the VAXstation II, Kodak, Apollo, Siemens, Computervision Corporation, FileNet Corporation, and CAE Systems, Inc. OEMs primarily market Interleaf's WPS software.
- Interleaf markets to two segments of the CAP market.
  - TPS is primarily marketed in the technical documentation market to corporations and government agencies. Technical documentation includes designs, drawings, and manuals for commercial products, scientific and engineering reports, and technical bids and proposals.
  - Both TPS and WPS are marketed in the office publishing market to manufacturers, banks, insurance companies, investment banking, and consulting firms. Office publishing that is enhanced by the integration of graphics and text include proposals, client reports, brochures, price lists, and memoranda.

#### GEOGRAPHIC MARKETS

- Approximately 83% of fiscal 1986 revenue was derived from the U.S. The remaining 17% was derived from foreign countries, primarily in Europe.
- Interleaf maintains 18 sales and service offices in Atlanta, Boston, Dallas, Denver (CO), Houston, Los Angeles (2), Minneapolis, New York (3), Philadelphia, San Francisco (3), San Diego (CA), Seattle (WA), and Washington, D.C.
- International sales are made through distributors in Western Europe and Australia, a wholly owned subsidiary in the U.K., and through three sales and services offices of a joint venture company, Interleaf Canada, Inc., in Canada.

#### COMPUTER HARDWARE

- Interleaf maintains a DEC MicroVAX II, running under MicroVMS, at its headquarters.



## COMPANY PROFILE

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### **INTERMETRICS, INC.**

733 Concord Avenue  
Cambridge, MA 02138  
Phone: (617) 661-1840  
Fax: (617) 547-3879

Joseph A. Saponaro, President & CEO  
Public Corporation, NASDAQ  
Total Employees: 588  
Total Revenue, Fiscal Year End  
2/28/92: \$61,334,000

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### **The Company**

Intermetrics, Inc., founded in 1969, provides professional engineering and software services, standard systems software products, and integrated systems to the U.S. government and commercial customers. The company specializes in embedded computer-based information services.

Intermetrics is currently organized into three business groups as follows:

- The Defense Systems Group, headquartered in Warminster (PA), provides systems engineering and software development services primarily to the Department of Defense (DoD) and related prime contractors in developing specialized software for acoustic signal processing, navigation, avionics, and communication systems applications.
- The Aerospace Systems Group, headquartered in Huntington Beach (CA), provides systems engineering and custom software development services to NASA and aerospace contractors in support of spacecraft, avionics, and navigation systems. The group also provides systems integration services to commercial customers.
- The Development Systems Group, headquartered in Cambridge (MA), provides custom and off-the-shelf programming environments, compilers, and tools for embedded microprocessors, and performs advanced software technology research for the U.S. government and commercial clients.
- Intermetrics Microsystems Software, Inc. (IMSI) is a separate subsidiary formed during fiscal 1991 to consolidate Intermetrics' commercial development and marketing efforts for standard C-language software development tools for embedded systems.

- Nihon Intermetrics K.K., also formed during fiscal 1991, is managing Japanese distribution relationships for Intermetrics' standard software products business.

Intermetrics' fiscal 1992 revenue reached \$61.3 million, a 10% increase over fiscal 1991 revenue of \$55.6 million. Net income rose 12%, from \$2.1 million in fiscal 1991 to nearly \$2.4 million in fiscal 1992. A five-year financial summary follows:

**INTERMETRICS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	2/92	2/91	2/90	2/89	2/88
Revenue	\$61,334	\$55,649	\$46,352	\$49,621	\$47,363
· Percent increase (decrease) from previous year	10%	20%	(7%)	5%	(1%)
Income before taxes	\$3,855	\$3,191	\$2,097	\$3,414	\$2,491
· Percent increase (decrease) from previous year	21%	52%	(39%)	37%	261%
Net income	\$2,390	\$2,138	\$1,531	\$2,777	\$2,173
· Percent increase (decrease) from previous year	12%	40%	(45%)	28%	442%
Earnings per share	\$0.63	\$0.59	\$0.43	\$0.79	\$0.63
· Percent increase (decrease) from previous year	7%	37%	(46%)	25%	425%

Intermetrics' management attributes fiscal 1992 and 1991 results to the following:

- The increased revenues during both years came mainly from the company's core business in the defense and civil (government non-defense) sectors. New contract awards in fiscal 1992 from the Department of Transportation's Volpe National Transportation System Center and from the Air Force for the Global Positioning System, combined with multiyear contracts awarded in prior years, accounted for the growth.
- Existing contracts with NASA for the Space Shuttle and Station programs, along with the Navy's Anti-Submarine Warfare System continued to provide a solid base of revenues for Intermetrics.



- Intermetrics management anticipates that the DoD will continue to reduce spending, but still expects modest revenue growth in fiscal 1993 because of its year-end backlog of \$52.4 million, coupled with target opportunities in the civil market sector.

Revenue for the three months ending May 31, 1992 reached \$14.9 million, slightly down from the same period in 1991. Net income was \$509,000 compared to \$566,000 for the same period a year ago.

Alliances include the following:

- In March 1992, IBM, Texas Instruments (TI), and Intermetrics announced an alliance to develop and market a fully integrated, open standard digital signal microcomputer subsystem that will support the development of multimedia applications products. TI will manufacture, sell, and support the new subsystem under the trade name Mwave™. Intermetrics will build and market the software development tools for the system. IBM developed the design and will be a customer for the system.
- In August 1991, Intermetrics provided \$1 million in financing and formed a strategic business alliance with Serius Corporation of Salt Lake City (UT). Serius markets application development tools for Macintosh systems.

As of February 29, 1992, Intermetrics had approximately 535 full-time employees and 53 part-time employees, segmented as follows:

Marketing, sales, and customer support	20
Engineering and technical	463
General and administrative	<u>105</u>
	588

### **Key Products and Services**

Approximately 93% of Intermetrics' fiscal 1992 revenue was derived from its various professional services and 7% was derived from standard, off-the-shelf software tools.

A three-year summary of source of revenue by business group follows:

**INTERMETRICS, INC.  
THREE-YEAR SOURCE OF REVENUE SUMMARY  
(\$ millions)**

ITEM	FISCAL YEAR					
	2/92		2/91		2/90	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Defense Systems	\$27.0	44%	\$21.7	39%	\$18.1	39%
Aerospace Systems	19.0	31%	17.2	31%	13.9	30%
Development Systems	15.3	25%	16.7	30%	14.4	31%
<b>TOTAL</b>	<b>\$61.3</b>	<b>100%</b>	<b>\$55.6</b>	<b>100%</b>	<b>\$46.4</b>	<b>100%</b>

*Development Systems Group:*

Intermetrics provides compilers, languages, tools, and complete development systems used for building embedded real-time applications. Intermetrics products and services support the development and maintenance of software in C and Ada languages, as well as the design, description, and simulation of electronic systems.

Intermetrics created the first high level language (HAL/S) used for manned space flight and the standard high-level language (SPL/1) used for the Navy's Anti-Submarine Warfare missions.

Intermetrics has been involved in the Ada programming language development effort since 1975. In March 1990, Intermetrics was selected to design the second generation of Ada, called Ada9X.

Intermetrics also offers a line of Ada products and services, including environment integration, system architecture consulting, applications software development, reusable software components, and training.

InterTools™ is a set of integrated tools for programming embedded microprocessors in C.

- InterTools includes optimizing compilers; macroassemblers; and XDB™, a C source-level debugger.
- InterTools operates on several development platforms, including microcomputers, workstations, and mini and mainframe computers, and generates code for the major 8-, 16-, and 32-bit microcomputer chips.

- Intermetrics has integrated InterTools with in-circuit emulators from all the major manufacturers, as well as other electronic instruments.
- In November 1990, Motorola announced that it would resell InterTools for Motorola's 68000 microprocessors.

The Whitesmiths™ product line, acquired during 1988, includes C language development systems for IBM System/370 architectures, DEC VAX and PDP-11 minicomputers and microcomputers; and IDRIS™, a POSIX-compatible real-time operating system.

Intermetrics provides integrated development systems that combine existing products with specialized environments, including custom software environments for C, Ada, SPL/1, and other languages.

Recent contracts include the following:

- Intermetrics was awarded a \$4.3 million contract for the U.S. Air Force System Command's Manufacturing Directorate, which involves the development of a system to help manufacturers share, exchange, and use information about electronics products.
- Intermetrics was awarded a \$1.2 million contract with the Communications Group of Rockwell to develop C language-based software tools for Rockwell's new special-purpose microprocessor for business office products.

#### *Defense Systems Group:*

Intermetrics provides system engineering and software services in the following areas:

- As a leader in airborne acoustic signal processing since 1981, Intermetrics has aided in detecting, classifying, tracking, and monitoring underwater targets. The company offers a range of anti-submarine warfare (ASW) engineering services, including algorithm development and analysis, software design and implementation, and systems integration and testing.
- During fiscal 1991, Intermetrics was awarded an \$8.2 million add-on contract with the Navy to continue operational and upgrade support of software for the Air Common Acoustic Processing (ACAP) program used in the P-3C and S-3B aircraft for ASW operations.
- Intermetrics has supported all phases of the NAVSTAR Global Positioning System (GPS) program for over 15 years, with

emphasis on system engineering, software development, and testing. The company is also providing solutions for autonomously navigated GPS satellites. In addition, Intermetrics has provided over a decade of support to advancing the relative navigation capabilities of the Joint Tactical Information Distribution System (JTIDS) terminal set.

- During fiscal 1992, Intermetrics was awarded a \$4 million contract involving integration and verification work for the GPS program.
- Intermetrics was also awarded a \$2 million contract from the U.S. Air Force in Florida to provide additional GPS-related services for the use of GPS at the U.S. Air Force test range.
- Intermetrics is one of the prime contractors providing information systems engineering services under contract to the Volpe National Transportation Systems Center in Cambridge (MA). During fiscal 1992, the Intermetrics team was awarded multiple contracts valued at \$9.5 million. The work involves information system development services and support for automated personnel assignment and transportation information systems for the U.S. Marine Corps. Under this contract, Intermetrics also conducted a review and assessment of the Advanced Automation System (AAS) for the Federal Aviation Administration.

#### *Aerospace Systems Group:*

Intermetrics provides software engineering and development services for real-time embedded computer system applications to the government, major aerospace system developers, and commercial customers.

For over 17 years, Intermetrics has worked on a range of projects for the Space Shuttle, from design of the HAL/S computer programming language, to its recent role of supporting shuttle flight-to-flight software building, certification, and upgrade and enhancement of the HAL/S compiler.

Intermetrics currently supports NASA and its prime contractors in improving and maintaining the systems necessary to operate the nation's Space Transportation System.

Intermetrics is currently supporting McDonnell Douglas, IBM, Grumman, and Lockheed in the design and development of integration, testing, and verification environments for Space Station software.

During fiscal 1992, Intermetrics was awarded a \$2.7 million contract to support Honeywell and Rockwell in redesigning and building software for the multifunctional displays to be upgraded for NASA's Space Shuttle cockpits.

**Industry Markets**

Approximately 58% of Intermetrics' fiscal 1992 revenue was derived from defense, 25% from civil (non-defense agencies), and 17% from commercial customers. Revenue from the U.S. government or its prime subcontractors represented 83% of total revenues.

General Motors and its subsidiaries or affiliates accounted for 6%, 8%, and 10% of Intermetrics' total revenue for fiscal 1992, 1991, and 1990, respectively.

**Geographic Markets**

Virtually all of Intermetrics' fiscal 1992 revenue was derived from the U.S.

U.S. offices are in Cambridge (MA); Huntington Beach and San Diego (CA); Oceanport and Wall (NJ); Warminster (PA); Houston (TX); McLean (VA); Lawton (OK); and Seattle (WA).

Intermetrics Microsystems Software and Whitesmiths are both headquartered in Cambridge (MA).

Nihon Intermetrics K.K., formed in 1990 and based in Tokyo, is a wholly owned Japanese company that supports the sales of Intermetrics Microsystems Software products in Japan.

**Computer Hardware and Software**

Intermetrics primarily has IBM, DEC, and Sun computers installed in support of its various services.



## COMPANY PROFILE

**INTERMETRICS, INC.**  
733 Concord Avenue  
Cambridge, MA 02138  
(617) 661-1840

John E. Miller, Chairman  
Joseph A. Saponaro, President  
Public Corporation, OTC  
Total Employees: 640  
Total Revenue, Fiscal Year End  
2/28/86: \$42,630,701

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### THE COMPANY

- Intermetrics, Inc., founded in 1969, provides customized systems and application software development professional services primarily to the federal government and manufacturing industries. The company also markets several application development software packages.
- Effective May 12, 1986, Intermetrics completed the sale of its factory monitoring business to ITP, Boston, Inc., an integrator of factory systems for major North American companies.
  - The business, which included Intermetrics' FOCUS and StarMate products, was conducted by PlantStar, Inc., the company's wholly owned subsidiary.
  - Revenues from PlantStar were approximately \$2.4 million, \$2.9 million, and \$1.6 million for fiscal 1986, 1985, and 1984, respectively.
  - Since realization of the sale price is contingent on PlantStar future sales, Intermetrics assigned no value to the sale price.
- Revenue from continuing operations for fiscal 1986 reached \$42.6 million, a 6% increase over fiscal 1985 revenue of \$40.1 million. Net losses were \$4.9 million, compared to net income of \$586,810 for fiscal 1985. In the five-year summary that follows, financials have been restated to reflect the discontinued operations/sale of PlantStar:

INTERMETRICS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)

FISCAL YEAR ITEM	2/86	2/85	2/84	2/83	2/82
Revenue from continuing operations	\$ 42,631	\$ 40,088	\$ 33,326	\$ 29,824	\$ 22,391
• Percent increase from previous year	6%	20%	12%	33%	28%
Income (loss) from continuing operations before taxes	\$ (2,052)	\$ 1,462	\$ 1,058	\$ N/A	\$ N/A
• Percent increase (decrease) from previous year	(240%)	38%	N/A	N/A	N/A
Net income (loss) (a)	\$ (4,883)	\$ 587	\$ 63	\$ 1,252	\$ 825
• Percent increase (decrease) from previous year	(932%)	832%	(95%)	52%	44%
Earnings (loss) per share (a)	\$ (1.48)	\$ 0.20	\$ 0.02	\$ 0.46	\$ 0.38
• Percent increase (decrease) from previous year	(840%)	900%	(96%)	21%	27%

(a) Includes net losses of approximately \$3.9 million (\$1.18 per share), \$461,000 (\$0.15 per share) and \$529,000 (\$0.18 per share) for fiscal 1986, 1985, and 1984, respectively from discontinued operations.

- Higher revenues in fiscal 1986 and 1985 resulted largely from additional contract software engineering services and, to a lesser extent, from price increases.
  - Essentially all of the increase for fiscal 1986 and approximately 50% of the increase in fiscal 1985 was due to custom applications work done primarily for the company's government clients.
  - Overall commercial business was about 18% lower in fiscal 1986 due in part to the weak economic climate experienced by the computer services industry during most of the year.
  - The loss from continuing operations in fiscal 1986 resulted from a \$4.2 million loss provision recorded during the second quarter to reflect estimated cost overruns and schedule delays to complete several fixed price Ada contracts.



## INTERMETRICS, INC.

- Research and development expenditures were \$654,936 in fiscal 1986, \$703,941 in fiscal 1985, and \$1,444,702 in fiscal 1984.
- On April 23, 1985, Intermetrics and AT&T Technologies, Inc. (AT&T-TI) signed agreements to jointly pursue U.S. federal government business and entered into a stock purchase agreement.
  - AT&T-TI will purchase up to \$40 million in software development, support, and engineering services from Intermetrics over five years, principally associated with work for U.S. government customers. Of the \$40 million, AT&T-TI has committed to offer contracts to Intermetrics for at least \$10 million during the next three years.
  - Under the terms of the stock purchase agreement, AT&T-TI has acquired a 10% interest (332,795 shares) in Intermetrics at a price of \$8.25 per share, with an option to increase its holding within one year to 20% (at \$9.75 per share). AT&T-TI may acquire shares in the market but is not to hold more than 30% of Intermetrics' outstanding shares during the next three years.
- Revenue from continuing operations for the six months ending August 31, 1986 reached \$24.7 million, an 11% increase over revenue of \$22.3 million for the same period in 1985. Net income was \$290,000 compared to net losses of \$2.4 million for the same period a year ago.
- As of February 28, 1986, Intermetrics had 640 employees, segmented as follows:

Marketing/sales	18
Engineering and technical	496
General and administrative	<u>126</u>
	640

- The company currently has approximately 610 employees.
- Major competitors include the following:
  - Software development tools: Language Resources, Whitesmiths, Ltd., and Mark Williams, Inc.
  - Application software development: TASC, TRW, and IBM.

### KEY PRODUCTS AND SERVICES

- Virtually all of Intermetrics' fiscal 1986 revenue was derived from professional services. A small percentage was derived from systems software packages.

INTERMETRICS, INC.

- Professional services revenue was derived from development contracts for software development tools and application software for the aerospace and defense industries.
- Software revenue was derived from the sale of off-the-shelf application development tools used to build software for microprocessors.
- A three-year summary of source of revenue, as provided by Intermetrics, follows:

	2/86	2/85	2/84
Software Engineering Applications	62%	56%	58%
Software Engineering Tools (a)	<u>38</u>	<u>44</u>	<u>42</u>
	100%	100%	100%

(a) Includes software product sales.

- Intermetrics' professional services expertise includes custom design and development of high order languages, computers, and associated software development tools primarily for computer manufacturers, major industrial computer users, and the federal government.
  - Intermetrics has been involved with the development of the Ada programming language for the Department of Defense (DoD) since 1975.
  - During 1982 Intermetrics undertook the development of a production quality Ada compiler. The initial contract was with the Air Force and as the development proceeded, Intermetrics received contracts for Ada compilers from other customers, including IBM, Sperry Corporation, Boeing Military Airplane Company, and Hughes Aircraft.
    - Completion of these contracts has been delayed and during the second quarter of fiscal 1986 Intermetrics recorded a \$4.2 million loss provision representing the estimated remaining costs to complete these compilers in excess of the contract values.
    - During the fourth quarter of fiscal 1986 Intermetrics certified its Ada compiler with the DoD for the IBM mainframe running under the UTS UNIX operating system.
    - Progress on these contracts in the second quarter of fiscal 1987 includes successful completion of the government's latest test requirements (pre-validation) for two of the six compilers under development. Delivery of the Ada compilers will begin early in the fourth quarter of fiscal 1987.

## INTERMETRICS, INC.

- In February 1986 Intermetrics signed a \$3 million software licensing agreement with Fujitsu, Ltd. for the use in Japan of Intermetrics' Ada compiler for DEC VAX computers targeted for the U.S. Air Force standard computer (the 1750A).
- Intermetrics is currently developing a family of software engineering tools for a large automobile manufacturer, including compilers and software configuration management tools, that will be used to produce application software for automobiles manufactured and marketed in the late 1980s. The company was recently awarded a \$3.7 million contract for follow-on work involving this multi-year program.
- Intermetrics is currently working on a new software tool that will speed the design and development of complex semiconductor integrated circuits.
- Intermetrics designs, builds, tests, and installs customized application software for avionics, navigation, signal processing, and command, control, communications, and intelligence applications for major aerospace and defense programs.
  - Services provided include analysis, mathematical modeling and simulation, hardware-software system design and specification, real-time software design and development, systems integration, system testing, and post-test processing.
  - During August 1985 Intermetrics was awarded a \$3.7 million 18-month contract from Grumman Aerospace Corporation to provide software engineering applications services, including the Air Force Advanced Tactical Fighter development.
  - Work performance for the Space Shuttle program has included navigation algorithm analysis, avionics laboratory test and data reduction, design and programming of back-up flight software, navigation system performance analysis, and flight system software reconfiguration.
  - Intermetrics currently has contracts to perform work for various avionics and marine systems including Space Station, Department of Defense Global Positioning System, Navy F-14 Aircraft, Air Force B-1B aircraft, Air Force Advanced Tactical Fighter, Defense Data Network, and Worldwide Information System.
  - In fiscal 1987 Intermetrics has been awarded approximately \$15 million in additional contracts with the U.S. Navy to provide simulator equipment in aircraft and aboard ships for test use of the Global Positioning System and to provide software engineering and support services for the anti-submarine warfare program.
- Intermetrics markets two software development packages used to build software for microprocessors.

## INTERMETRICS, INC.

- Interpas<sup>T.M.</sup> and InterC<sup>T.M.</sup> are compilers for the Pascal and C languages.
  - The products run on DEC PDP and VAX computers, Pyramids, and the UNIX workstations of Apollo, Sun Microsystems, MASSCOMP, and Cadmus. The compilers are used to develop software for Motorola 68000, 6809, Intel 8086, 80186, 80286, and Zilog Z-80 microprocessors.
- PL/M 6800 is a high-level programming language and compiler for the Motorola 6800 that runs on IBM 360/370 computers.

### INDUSTRY MARKETS

- Seventy-six percent of Intermetrics' fiscal 1986 revenue was derived directly from the federal government and its defense and aerospace contractors.
- A three-year summary of the percentage of total revenue derived from major customers follows:

	2/86	2/85	2/84
U.S. Government and Government Agencies	42%	49%	48%
Rockwell International (a)	9%	8%	12%
IBM	5%	13%	20%

- (a) A prime contractor of the U.S. Government for which Intermetrics functions as a subcontractor.

### GEOGRAPHIC MARKETS

- Virtually all of Intermetrics' fiscal 1986 revenue was derived from the U.S.
- U.S. offices are located in Huntington Beach and San Diego (CA), Bethesda (MD), Dayton, Warminster (PA), Houston, Reston (VA), Seattle (WA), and Woodbury (NY).

### COMPUTER HARDWARE AND SOFTWARE

- Intermetrics' computer facilities include the following equipment:
  - 1 IBM 3083.
  - 2 IBM 4341s.
  - 1 Data General ECLIPSE C300, AOS and RDOS.
  - 1 Data General ECLIPSE C330, AOS and RDOS.
  - 1 Data General ECLIPSE S140, AOS and RDOS.
  - 1 Data General NOVA 1200, RDOS.
  - 1 DEC VAX-11/780, UNIX.

INTERMETRICS, INC.

- 1 DEC VAX-11/780, VAX/VMS.
- 3 DEC PDP-11/70s, PWB/UNIX and RSX-11M.
- 1 DEC PDP-11/34, RSX-11M.
- 1 Nanodata QM.
- 1 Texas Instruments 990, DX10.
- 1 Prime 75 PRIMOS.



## COMPANY PROFILE

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### **INTERMETRICS, INC.**

733 Concord Avenue  
Cambridge, MA 02138  
(617) 661-1840

Joseph A. Saponaro, President & CEO  
Public Corporation, NASDAQ  
Total Employees: 610  
Total Revenue, Fiscal Year End  
2/28/91: \$55,649,000

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### **The Company**

Intermetrics, Inc., founded in 1969, provides professional engineering and software services, standard systems software products, and integrated systems to the U.S. government and commercial customers. The company specializes in embedded computer-based information services.

Intermetrics is currently organized into three business groups as follows:

- The Defense Systems Group, headquartered in Warminster (PA), provides systems engineering and software development services primarily to the Department of Defense (DoD) and related prime contractors in developing specialized software for acoustic signal processing, navigation, avionics, and communication systems applications.
- The Aerospace Systems Group, headquartered in Huntington Beach (CA), provides systems engineering and custom software development services to NASA and aerospace contractors in support of spacecraft, avionics, and navigation systems. The group also provides systems integration services to commercial customers.
- The Development Systems Group, headquartered in Cambridge (MA), provides custom and off-the-shelf programming environments, compilers, and tools for embedded microprocessors, and performs advanced software technology research for the U.S. government and commercial clients.
- Intermetrics Microsystems Software, Inc. (IMSI) is a separate subsidiary formed during fiscal 1991 to consolidate Intermetrics' commercial development and marketing efforts for standard C-language software development tools for embedded systems.

- Nihon Intermetrics K.K., also formed during fiscal 1991, is managing Japanese distribution relationships for Intermetrics' standard software products business.

Intermetrics' fiscal 1991 revenue reached \$55.6 million, a 20% increase over fiscal 1990 revenue of \$46.4 million. Net income rose 40%, from \$1.5 million in fiscal 1990 to over \$2.1 million in fiscal 1991. A five-year financial summary follows:

**INTERMETRICS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	2/91	2/90	2/89	2/88	2/87
Revenue	\$55,649	\$46,352	\$49,621	\$47,363	\$47,747
• Percent increase (decrease) from previous year	20%	(7%)	5%	(1%)	12%
Income before taxes	\$3,191	\$2,097	\$3,414	\$2,491	\$691
• Percent increase (decrease) from previous year	52%	(39%)	37%	261%	134%
Net income	\$2,138	\$1,531	\$2,777	\$2,173	\$401
• Percent increase (decrease) from previous year	40%	(45%)	28%	442%	141%
Earnings per share	\$0.59	\$0.43	\$0.79	\$0.63	\$0.12
• Percent increase (decrease) from previous year	37%	(46%)	25%	425%	140%

Intermetrics' management attributes fiscal 1991 results to the following:

- Aerospace Systems, Defense Systems, and Development Systems revenues increased 26%, 21%, and 13%, respectively. Total revenues increased primarily due to the increased backlog achieved by winning a number of proposals at the end of fiscal 1990.
- Gross profit for fiscal 1991 grew by nearly 10% over the prior year. The increase occurred primarily within the Development Systems and Aerospace Systems units, reflecting higher revenues and stronger performance on certain U.S. government and commercial services contracts.



Revenue for the three months ending May 31, 1991 reached \$14.9 million, a 22% increase over \$12.3 million for the same period in 1990. Net income rose 14%, from \$496,000 to \$566,000.

In August 1991, Intermetrics provided \$1 million in financing and formed a strategic business alliance with Serius Corporation of Salt Lake City (UT). Serius markets application development tools for Macintosh systems.

As of February 28, 1991, Intermetrics had approximately 560 full-time employees and 50 part-time employees, segmented as follows:

Marketing, sales, and customer support	21
Engineering and technical	484
General and administrative	<u>105</u>
	610

#### Key Products and Services

Approximately 93% of Intermetrics' fiscal 1991 revenue was derived from its various professional services and 7% was derived from standard, off-the-shelf software tools.

A three-year summary of source of revenue by business group follows:

**INTERMETRICS, INC.**  
**THREE-YEAR SOURCE OF REVENUE SUMMARY**  
**(\$ millions)**

ITEM	FISCAL YEAR					
	2/91		2/90		2/89	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Defense Systems	\$21.7	39%	\$18.1	39%	\$20.8	42%
Aerospace Systems	17.2	31%	13.9	30%	11.9	24%
Development Systems	16.7	30%	14.4	31%	16.9	34%
<b>TOTAL</b>	<b>\$55.6</b>	<b>100%</b>	<b>\$46.4</b>	<b>100%</b>	<b>\$49.6</b>	<b>100%</b>

#### *Development Systems Group:*

Intermetrics provides compilers, languages, tools, and complete development systems used for building embedded real-time applications. Intermetrics products and services support the

development and maintenance of software in C and Ada languages, as well as the design, description, and simulation of electronic systems.

Intermetrics created the first high level language (HAL/S) used for manned space flight and the standard high level language (SPL/1) used for the Navy's Anti-Submarine Warfare missions.

Intermetrics has been involved in the Ada programming language development effort since 1975. In March 1990, Intermetrics was selected to design the second generation of Ada, called Ada9X.

- Intermetrics also offers a line of Ada products and services, including environment integration, system architecture consulting, application software development, reusable software components, and training.

InterTools™ is a set of integrated tools for programming embedded microprocessors in C.

- InterTools includes optimizing compilers; macroassemblers; and XDB™, a C source level debugger.
- InterTools operates on several development platforms, including microcomputers, workstations, and mini and mainframe computers, and generates code for the major 8-, 16-, and 32-bit microcomputer chips.
- Intermetrics has integrated InterTools with in-circuit emulators from all the major manufacturers, as well as other electronic instruments.
- In November 1990, Motorola announced that it would resell InterTools for Motorola's 68000 microprocessors.

The Whitesmiths™ product line, acquired during 1988, includes C language development systems for IBM System/370 architectures, DEC VAX and PDP-11 minicomputers, and microcomputers; and IDRIS™, a POSIX-compatible real-time operating system.

Intermetrics provides integrated development systems that combine existing products with specialized environments, including custom software environments for C, Ada, SPL/1, and other languages.

#### *Defense Systems Group:*

Intermetrics provides system engineering and software services in the following areas:

- As a leader in airborne acoustic signal processing since 1981, Intermetrics has aided in detecting, classifying, tracking, and monitoring underwater targets. The company offers a range of anti-submarine warfare (ASW) engineering services, including algorithm development and analysis, software design and implementation, and systems integration and testing.
- During fiscal 1991, Intermetrics was awarded an \$8.2 million add-on contract with the Navy to continue operational and upgrade support of software for the Air Common Acoustic Processing (ACAP) program used in the P-3C and S-3B aircraft for ASW operations.
- Intermetrics has supported all phases of the NAVSTAR Global Positioning System (GPS) program for over 15 years, with emphasis in system engineering, software development, and testing. The company is also providing solutions for autonomously navigated GPS satellites. In addition, Intermetrics has provided over a decade of support to advancing the relative navigation capabilities of the Joint Tactical Information Distribution System (JTIDS) terminal set.
- During fiscal 1991, Intermetrics was awarded a \$3.2 million contract to support field testing of GPS user equipment in conjunction with the central test range facilities at Holloman Air Force Base, Edwards Air Force Base, and other locations.
- Intermetrics was also awarded a \$8.7 million contract with the U.S. Army Avionics Research and Development Activity (AVRADA) in Fort Monmouth (NJ) to provide system engineering and analytical support related to GPS and other navigation technologies for both aircraft and ground vehicles.
- Intermetrics is one of the prime contractors providing information systems engineering services under contract to the Volpe National Transportation Systems Center in Cambridge (MA). During fiscal 1991, the Intermetrics team was awarded a \$4.8 million contract to provide engineering services for the U.S. Marine Corps on a system to support ship embarkation planning and execution; a system to automate the management of Marine Corps transportation assets and designated critical resources; and test and evaluation services for the Air Force Electronic Systems Division supporting computer security related products.
- During fiscal 1991, Intermetrics was awarded a contract by the Air Force Rome Air Development Center (RADC) to develop a workstation-based facility that will enable experimentation with a wide range of languages, tools, and architectures for parallel

computing so that the evaluation of existing parallel processing technology can be performed and to demonstrate the effectiveness for the Air Force's Command and Control requirements.

#### *Aerospace Systems Group:*

Intermetrics provides software engineering and development services for real-time embedded computer system applications to the government, major aerospace system developers, and commercial customers.

For over 17 years, Intermetrics has worked on a range of projects for the Space Shuttle, from design of the HAL/S computer programming language, to its recent role of supporting shuttle flight-to-flight software building, certification, and upgrade and enhancement of the HAL/S compiler.

Intermetrics currently supports NASA and its prime contractors in improving and maintaining the systems necessary to operate the nation's Space Transportation System.

Intermetrics is currently supporting McDonnell Douglas, IBM, and Lockheed in the design and development of integration, testing, and verification environments for Space Station software.

#### **Industry Markets**

Approximately 55% of Intermetrics' fiscal 1991 revenue was derived from defense, 25% from civil (non-defense agencies), and 20% from commercial customers. Revenue from the U.S. government or its prime subcontracts represent 80% of total revenues.

General Motors and its subsidiaries or affiliates accounted for 8%, 10%, and 12% of Intermetrics' total revenue for fiscal 1991, 1990, and 1989, respectively.

#### **Geographic Markets**

Virtually all of Intermetrics' fiscal 1991 revenue was derived from the U.S.

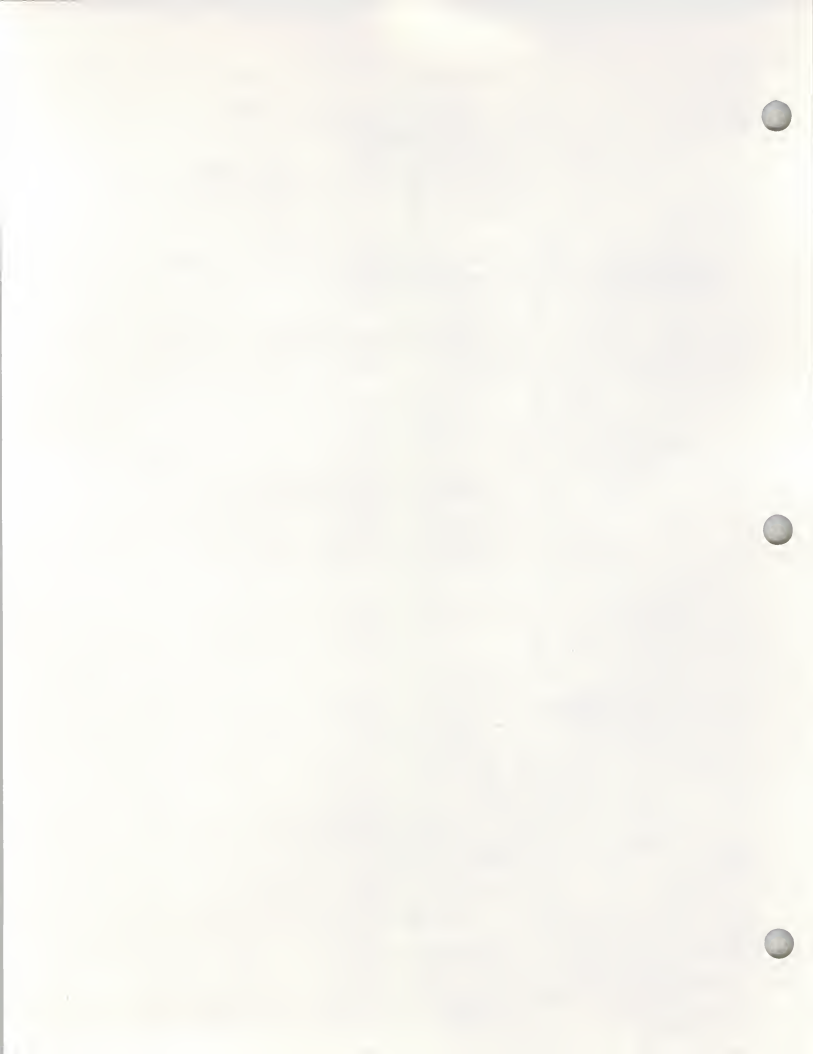
Offices are located in Cambridge (MA); Huntington Beach and San Diego (CA); Bethesda (MD); Fort Monmouth, Oceanport, and Wall (NJ); Dayton (OH); Warminster (PA); Houston (TX); McLean (VA); Lawton (OK); and Seattle (WA).

Intermetrics Microsystems Software and Whitesmiths are both headquartered in Cambridge (MA).

- In May 1990, Intermetrics established Nihon Intermetrics K.K., a wholly owned Japanese company, to support the sales of IMSI products in Japan.

**Computer  
Hardware and  
Software**

Intermetrics primarily has IBM, DEC, and Sun computers installed in support of its various services.



## COMPANY PROFILE

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### **INTERMETRICS, INC.**

733 Concord Avenue  
Cambridge, MA 02138  
(617) 661-1840

John E. Miller, Chairman  
Joseph A. Saponaro, President & CEO  
Public Corporation, OTC  
Total Employees: 582  
Total Revenue, Fiscal Year End  
2/28/89: \$49,621,000

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### **The Company**

Intermetrics, Inc., founded in 1969, provides professional engineering and software services, standard systems software products, and integrated systems to the U.S. government and commercial customers. The company specializes in embedded computer-based information services.

Intermetrics is currently organized into three business groups as follows:

- The Development Systems Group, headquartered in Cambridge (MA), provides custom and off-the-shelf programming environments, compilers, and tools to federal government and commercial clients.
- The Defense Systems Group, headquartered in Warminster (PA), provides systems engineering and software development services primarily to the Department of Defense (DoD) and related prime contractors in developing specialized software for acoustic signal processing, navigation, avionics, and communication systems applications.
- The Aerospace Systems Group, headquartered in Huntington Beach (CA), provides systems engineering and custom software development services to NASA and aerospace contractors in support of spacecraft, avionics, and navigation systems. The group also provides systems integration services to commercial customers.

Intermetrics' fiscal 1989 revenue reached \$49.6 million, a 5% increase over fiscal 1988 revenue of \$47.4 million. Net income rose 28%, from \$2.2 million in fiscal 1988 to \$2.8 million in fiscal 1989. A five-year financial summary follows:

**INTERMETRICS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	2/89	2/88	2/87	2/86	2/85
Revenue	\$49,621	\$47,363	\$47,747	\$42,631	\$40,088
• Percent increase (decrease) from previous year	5%	(1%)	12%	6%	20%
Income (loss) before taxes	\$3,414	\$2,491	\$691	\$(2,052)	\$1,462
• Percent increase (decrease) from previous year	37%	261%	134%	(240%)	38%
Net income (loss) (a)	\$2,777	\$2,173	\$401	\$(980)	\$1,048
• Percent increase (decrease) from previous year	28%	442%	141%	(194%)	77%
Earnings (loss) per share (a)	\$0.79	\$0.63	\$0.12	\$(0.30)	\$0.35
• Percent increase (decrease) from previous year	25%	425%	140%	(186%)	75%

(a) Certain amounts prior to fiscal 1989 have been restated to reflect the effect of SFAS No. 96 "Accounting for Income Taxes" adopted during fiscal 1989.

Intermetrics' management attributes fiscal 1989 results to the following:

- A 9% increase in Aerospace Systems revenues, for the most part, offset a decrease in Defense Systems business, reflecting the slower pace of spending by the DoD.
- Development Systems revenue increased 24%, primarily due to growth in integrated software development systems and related tools, as well as sales of the company's InterTools™ and Whitesmiths™ software products.

Revenue for the six months ending August 31, 1989 was \$23.3 million, a 7% decrease from \$25.1 million for the same period in 1988. Net income reached \$1.2 million, compared to \$1.4 million for the same period a year ago.



As of February 28, 1989, Intermetrics had approximately 543 full-time employees and 39 part-time employees, segmented as follows:

Marketing, sales, and customer support	22
Engineering and technical	445
General and administrative	<u>115</u>
	582

### Key Products and Services

A three-year summary of source of revenue by business group follows:

#### INTERMETRICS, INC. THREE-YEAR SOURCE OF REVENUE SUMMARY (\$ millions)

ITEM	FISCAL YEAR					
	2/89		2/88		2/87	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Development Systems	\$16.9	34%	\$13.7	29%	\$16.7	35%
Defense Systems	20.8	42%	22.7	48%	19.1	40%
Aerospace Systems	11.9	24%	11.0	23%	11.9	25%
<b>TOTAL</b>	<b>\$49.6</b>	<b>100%</b>	<b>\$47.4</b>	<b>100%</b>	<b>\$47.7</b>	<b>100%</b>

#### *Development Systems Group:*

Intermetrics provides compilers, languages, tools, and complete development systems used for building embedded real-time applications. Intermetrics products and services support the development and maintenance of software in C and Ada languages, as well as the design, description, and simulation of electronic systems.

- Intermetrics created the first high level language (HAL/S) used for manned space flight and the standard high level language (SPL/1) used for the Navy's Anti-Submarine Warfare missions.

InterTools is a set of integrated tools for programming embedded microprocessors in C.

- InterTools includes optimizing compilers; macroassemblers; and XDB™, a C source level debugger.
- InterTools operates on several development platforms, including microcomputers, workstations, and mini and mainframe computers, and generates code for the major 8-, 16-, and 32-bit microcomputer chips.
- Intermetrics has integrated InterTools with in-circuit emulators from all the major manufacturers, as well as other electronic instruments.

The Whitesmiths product line, acquired during 1988, includes C language development systems for IBM System/370 architectures, DEC VAX and PDP-11 minicomputers, and microcomputers; and IDRIS™, a POSIX-compatible real-time operating system.

Intermetrics designed and developed a Hardware Description Language (VHDL) for design of Very High Speed Integrated Circuits (VHSIC). VHDL is now an Institute of Electrical and Electronics Engineers standard.

- VHDL provides the integrated circuit designer with a standard language to define the circuit as well as a simulation system to test the design prior to committing it to the manufacturing process.
- It is expected that the DoD will use VHDL for specifying VHSIC systems as engineers become more familiar with the language.

Intermetrics offers a line of Ada products and services, including environment integration, system architecture consulting, application software development, reusable software components, and training.

- Intermetrics markets a complete integrated environment for the IBM System /370 computer and an Ada support system for the MIL-STD-1750 military computer.
- Intermetrics' Ada products are supported on IBM mainframes and compatibles under MVS, VM/CMS, and UNIX, and DEC VAX systems under VMS.
- Features of Intermetrics' Ada environment include Byron<sup>®</sup>, an Ada-based program design language and document generator; the Ada-View™ source level debugger; and interfaces to CICS, COBOL, and SQL.

Intermetrics provides integrated development systems that combine existing products with specialized environments, including custom software environments for C, Ada, SPL/1, and other languages.

- Intermetrics has developed and delivered a custom software development environment for a major automobile manufacturer that will be used to build the specific application software for embedded microprocessor chips used to control engines, displays, and other instrumentation in automobiles.

*Defense Systems Group:*

Intermetrics provides system engineering and software services in the following areas:

- As a leader in airborne acoustic signal processing since 1981, Intermetrics has aided in detecting, classifying, tracking, and monitoring underwater targets. The company offers a range of anti-submarine warfare (ASW) engineering services, including algorithm development and analysis, software design and implementation, and systems integration and testing.
- These capabilities are currently being applied to the Air Common Acoustic Processing (ACAP) program which executes on the P-3C Update III and S-3B airborne platforms. Intermetrics also developed the algorithms used in the Contact Monitoring and Target Classifier (CMTC), an automated decision aid for target identification. In addition, the company is enhancing the Anti-Submarine Warfare Module (CV-ASWM) which resides on the aircraft carrier and analyzes the surface, subsurface, and air activity.
- Intermetrics has supported all phases of the NAVSTAR Global Positioning System (GPS) program for 15 years, with emphasis in system engineering, software development, and testing. The company is also providing solutions for autonomously navigated GPS satellites. In addition, Intermetrics has provided over a decade of support to advancing the relative navigation capabilities of the Joint Tactical Information Distribution System (JTIDS) terminal set.
- Intermetrics is involved in military and commercial next-generation communication systems. The company is developing software for the Radio Control Equipment (RCE) portion of the FAA's National Air Traffic Control System. Intermetrics has developed real-time communications software for the Defense Communications Agency's Future Secure Voice

System, a next-generation telephone for transmitting secure voice and data. Intermetrics is also a key technical agent for the World Wide Military Command and Control System (WWMCCS) and the Joint Interoperability Evaluation System (JIES), a simulation facility used to test the interoperability of military tactical and communications systems.

- Intermetrics supports military avionics systems and advanced technology analysis. For the F-14D avionics system, the company is analyzing requirements for all major functional areas, including navigation, communication, aircraft control, air-to-air attack, surveillance, defensive measures, and reconnaissance.
- Intermetrics is also supporting the Navy by investigating computer hardware, such as high speed parallel buses and modular processors, for the Advanced Avionics Technology Demonstration. In the area of avionics software, Intermetrics developed the operational avionics software for the U.S. President's transport and evacuation helicopters.

#### *Aerospace Systems Group:*

Intermetrics provides software engineering and development services for real-time embedded computer system applications to the government, major aerospace system developers, and commercial customers.

- For the Space Transportation System, Intermetrics provides upgrades and programming tools for NASA's HAL/S, the software system used to create flight software memory loads for both the primary and backup systems for the Shuttle. The company is developing procedures and systems to automatically reconfigure the flight software as required to perform each Shuttle flight mission. Prior to each Shuttle flight since the Challenger accident, Intermetrics independently verifies and validates the Shuttle avionics and flight software--certifying at the Flight Readiness Review that the configuration is correct.
- Intermetrics helped define requirements and a preliminary design for the Space Station Freedom's data management subsystem; guidance, navigation, control, and propulsion software; and development support system software. Intermetrics is also evaluating overall plans and procedures for performing validation and verification of Space Station software throughout the program.
- Avionics integration is a major business area and includes

validation of autopilot design and implementation for the Boeing Company. Since 1974, Intermetrics has performed development, verification, validation, integration, and test activities on the Global Positioning System (GPS) receivers aboard aircraft and spacecraft. Intermetrics' GPS Avionics Integration Laboratory includes both static and full dynamic simulation and test capability for all types of GPS receivers and avionics suites.

- Intermetrics provides process monitoring, control, and display systems primarily to the petrochemical industry. These integrated turnkey systems for tank gauging and flow control are used by all of Texaco's oil storage and distribution facilities in the U.S.

### Industry Markets

Approximately 41% of Intermetrics' fiscal 1989 revenue was derived from the federal government and 32% from defense and aerospace contractors. The remaining 27% was derived from commercial customers.

A three-year summary of the percentage of total revenue derived from major customers follows:

CUSTOMER	FISCAL YEAR		
	2/89	2/88	2/87
Federal government	41%	41%	37%
Defense and aerospace contractors	32%	37%	38%
General Motors	12%	7%	7%

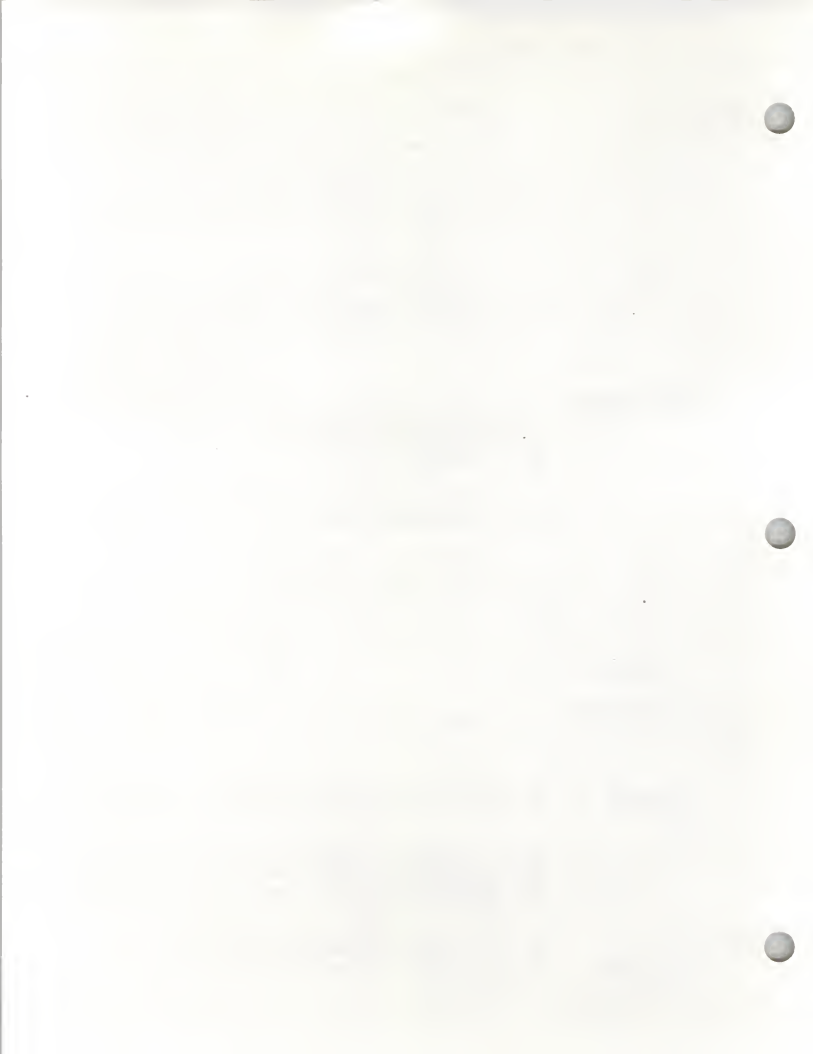
### Geographic Markets

Virtually all of Intermetrics' fiscal 1989 revenue was derived from the U.S.

Offices are located in Cambridge (MA), Huntington Beach (CA), Bethesda (MD), Oceanport (NJ), Woodbury (NY), Dayton (OH), Warminster (PA), Houston (TX), Reston (VA), and Seattle (WA).

### Computer Hardware and Software

Intermetrics primarily has IBM, DEC, and Sun computers installed in support of its various services.



# FINANCIAL UPDATE TO PROFILE DATED OCTOBER 1983\*

**INTERMETRICS, INC.**  
733 Concord Avenue  
Cambridge, MA 02138  
(617) 661-1840

John E. Miller, President and CEO  
Public Corporation, OTC  
Total Employees: 599  
Total Revenue, Fiscal Year End  
2/29/85: \$43,009,354

## INTERMETRICS, INC. FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

ITEM \ FISCAL YEAR	2/85	2/84	2/83	2/82	2/81
Revenue	\$ 43,009	\$ 34,952	\$ 31,130	\$ 24,254	\$ 17,523
• Percent increase from previous year	23%	12%	28%	38%	43%
Income before taxes	\$ 607	\$ 22	\$ 1,982	\$ 1,348	\$ 762
• Percent increase (decrease) from previous year	(a)	(99%)	47%	77%	(2%)
Net income	\$ 587	\$ 63	\$ 1,252	\$ 825	\$ 574
• Percent increase (decrease) from previous year	832%	(95%)	52%	44%	19%
Earnings per share	\$ 0.20	\$ 0.02	\$ 0.46	\$ 0.38	\$ 0.30
• Percent increase (decrease) from previous year	900%	(96%)	21%	27%	15%

(a) Percent change exceeds 1,000%.

### SOURCE OF REVENUE

- Eighty-three percent of Intermetrics' fiscal 1984 revenue was derived from professional services. The remaining 17% was from turnkey systems, of which 10-15% was from systems software products.
- Professional services revenue was derived from development contracts for software development tools and applications software for the aerospace and defense industries.

\*Replaces Financial Update of June 1984

# INTERMETRICS, INC.

- Turnkey systems revenue was derived from microprocessor-based industrial productivity monitoring and control systems.
- Software revenue was derived from the sale of InterC<sup>T.M.</sup> and InterPas<sup>T.M.</sup> off-the-shelf microprocessor-based C and Pascal cross-compilers, first introduced during fiscal 1983.
- A three-year summary of source of revenue, as provided by Intermetrics, follows:

	2/85	2/84	2/83
Professional services			
• Applications software	45%	49%	49%
• Software development tools	38	39	43
Turnkey systems (a)	<u>17</u>	<u>12</u>	<u>8</u>
	100%	100%	100%

(a) Includes software product sales

- On April 23, 1985, Intermetrics and AT&T Technologies, Inc. (AT&T-TI) signed agreements to jointly pursue U.S. federal government business and entered into a stock purchase agreement.
  - AT&T-TI will purchase up to \$40 million in software development, support, and engineering services from Intermetrics over five years, principally associated with work for U.S. government customers. Of the \$40 million, AT&T-TI has committed to offer contracts to Intermetrics for at least \$10 million during the next three years.
  - Under the terms of the stock purchase agreement, AT&T-TI has acquired a 10% interest (332,795 shares) in Intermetrics at a price of \$8.25 per share, with an option to increase its holding within one year to 20% (at \$9.75 per share). AT&T-TI may acquire shares in the market but is not to hold more than 30% of Intermetrics' outstanding shares during the next three years.



# FINANCIAL UPDATE TO HIGHLIGHT DATED OCTOBER 1983

**INTERMETRICS, INC.**  
733 Concord Avenue  
Cambridge, MA 02138  
(617) 661-1840

John E. Miller, President  
Public Corporation, OTC  
Total Employees: 584  
Total Revenue, Fiscal Year End  
2/29/84: \$34,951,753

## INTERMETRICS, INC. FIVE-YEAR FINANCIAL SUMMARY (\$ thousands, except per share data)

ITEM \ FISCAL YEAR	2/84	2/83	2/82	2/81	2/80
Revenue	\$ 34,952	\$ 31,130	\$ 24,254	\$ 17,523	\$ 12,293
. Percent increase from previous year	12%	28%	38%	43%	53%
Income before taxes	\$ 22	\$ 1,982	\$ 1,348	\$ 762	\$ 777
. Percent increase (decrease) from previous year	(99%)	47%	77%	(2%)	N/A
Net income	\$ 63	\$ 1,252	\$ 825	\$ 574	\$ 482
. Percent increase (decrease) from previous year	(95%)	52%	44%	19%	38%
Earnings per share	\$ 0.02	\$ 0.46	\$ 0.38	\$ 0.30	\$ 0.26
. Percent increase (decrease) from previous year	(96%)	21%	27%	15%	37%

### SOURCE OF REVENUE

- Eighty-nine percent of Intermetrics' fiscal 1984 revenue was derived from professional services. The remaining 11% was from turnkey systems.
  - Professional services revenue was derived from development contracts for software development tools and applications software for the aerospace, defense, and energy industries.
  - Turnkey systems revenue was derived from microprocessor-based industrial productivity monitoring and control systems.

INTERMETRICS, INC.

- A three-year summary of source of revenue follows (\$ millions):

FISCAL YEAR ITEM	2/84		2/83		2/82	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Professional services						
• Applications software	\$ 17.1	49%	\$ 15.2	49%	\$ 12.6	52%
• Software development tools	14.0	40	13.7	44	8.7	36
Turnkey systems	<u>3.9</u>	<u>11</u>	<u>2.2</u>	<u>7</u>	<u>3.0</u>	<u>12</u>
Total	\$ 35.0	100%	\$ 31.1	100%	\$ 24.3	100%

## COMPANY HIGHLIGHT

INTERMETRICS, INC.  
733 Concord Avenue  
Cambridge, MA 02138  
(617) 661-1840

John E. Miller, President  
Public Corporation, OTC  
Total Employees: 528  
Total Revenue, Fiscal Year End  
2/28/83: \$31,130,041

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### THE COMPANY

- Intermetrics, Inc., founded in 1969, provides professional services, turnkey systems, and applications development software packages primarily to the federal government and manufacturing industries.
- On June 29, 1982, Intermetrics made an initial public offering of 635,000 shares of common stock.
  - Net proceeds of approximately \$3.9 million were used to reduce debt, purchase computer equipment, and provide financing for working capital requirements.
  - An additional 200,000 shares were sold at this offering by selling stockholders.
- Fiscal 1983 revenue reached \$31.1 million, a 28% increase over fiscal 1982 revenue of \$24.3 million. Net income rose 52% from \$825,000 in 1982 to \$1.3 million in 1983. A five-year financial summary follows:

## INTERMETRICS, INC.

INTERMETRICS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)

ITEM \ FISCAL YEAR	2/83	2/82	2/81	2/80	2/79
Revenue	\$ 31,130	\$ 24,254	\$ 17,523	\$ 12,293	\$ 8,027
• Percent increase from previous year	28%	38%	43%	53%	48%
Income before taxes	\$ 1,982	\$ 1,348	\$ 762	\$ 777	N/A
• Percent increase (decrease) from previous year	47%	77%	(2%)	N/A	N/A
Net income	\$ 1,252	\$ 825	\$ 574	\$ 482	\$ 349
• Percent increase from previous year	52%	44%	19%	38%	60%
Earnings per share	\$ 0.46	\$ 0.38	\$ 0.30	\$ 0.26	\$ 0.19
• Percent increase from previous year	21%	27%	15%	37%	46%

- Intermetrics spent \$1.1 million (3% of revenue) on research and development in fiscal 1983, as compared to \$638,000 (3% of revenue) in fiscal 1982, and \$355,000 (2% of revenue) in fiscal 1981.

- Revenue for the six months ending August 31, 1983, reached \$15.7 million, a 4% increase over revenue of \$15 million for the same period in fiscal 1982. Net losses for the period were \$276,000, a decline of 153% from net income in 1982 of \$441,000.

- Intermetrics management states that both revenue and net income were negatively affected by the higher level of expenditures related to bid and proposal efforts for potential new government contract business, the slowdown of turnkey product sales in the commercial market, and additional investments in product development.

- As of February 28, 1983, Intermetrics had 528 employees. The company currently has 565 employees, segmented as follows:

Marketing/sales	21
Engineering and technical	422
General and administrative	<u>122</u>
	565

- Professional services competitors in the software development tool area include Language Resources, Whitesmiths, Ltd., and Mark Williams, Inc.

## INTERMETRICS, INC.

Applications software development competitors include TASC, TRW, and IBM. Turnkey systems competitors include Barber-Coleman, XYTEK, Scantex, and Logicon.

### KEY PRODUCTS AND SERVICES

- Ninety-three percent of Intermetrics' fiscal 1983 revenue was derived from professional services. The remaining 7% was from turnkey systems.
  - Professional services revenue was derived from development contracts for software development tools and applications software for the aerospace, defense, and energy industries.
  - Turnkey systems revenue was derived from microprocessor-based industrial productivity monitoring and control systems.
  - A three-year summary of source of revenue follows (\$ millions):

FISCAL YEAR ITEM	2/83		2/82		2/81	
	Revenue	Percent of Total	Revenue	Percent of Total	Revenue	Percent of Total
Professional services						
• Applications software	\$15.2	49%	\$12.6	52%	\$11.2	64%
• Software development tools	13.7	44	8.7	36	5.6	32
Turnkey systems	<u>2.2</u>	<u>7</u>	<u>3.0</u>	<u>12</u>	<u>0.7</u>	<u>4</u>
Total	\$31.1	100%	\$24.3	100%	\$17.5	100%

- Intermetrics' professional services expertise includes custom design and development of compilers, high order languages, and associated software development tools.
  - Substantially all of the company's software development tool business is conducted under contracts with government or manufacturing industry clients. IBM continues to be a major customer, representing 20% and 15% of fiscal 1983 and 1982 revenue, respectively.
  - Examples of contracts include the following:
    - A \$7 million contract with the Aeronautical Systems Division of the Air Force to design and build VHDL, the very high-speed integrated circuit hardware description language.
    - A \$7.1 million contract awarded by the Air Force in April 1982 for the development of an integrated set of programming tools for the Ada language, the new standard for embedded computer software within the Department of Defense (DOD).

- Development of a JOVIAL compiler for use in the B-52 upgrade effort by the DOD and a FORTRAN 77 compiler for Gould, Inc. These products were delivered during fiscal 1983. Currently under development are a C compiler for NCR Comten, Inc. and a JOVIAL system for Westinghouse.
- Development of a compiler for CHILL, a standard programming language adopted by the international telecommunications industry, under a contract with International Telephone & Telegraph.
- HAL/S, a high order language and compiler designed under contract to NASA, is used to program the on-board computers for the Space Shuttle and is a NASA standard programming language.
- Intermetrics designs, builds, tests, and installs customized applications software for the aerospace, defense, and energy industries and provides systems engineering professional services.
  - Aerospace and defense-related professional services include the design, testing, implementation, and operation of advanced avionics and marine systems that monitor and initiate various in-flight or in-use procedures for aircraft, space vehicles, and ships. The software also performs navigational procedures; tests the operational status of on-board computers and equipment; generates visual displays on terminals for pilots, navigators, or weapons operators; records data for transmittal to ground bases; and provides simulations of a vehicle and its operations for study and analysis in a laboratory setting. Contract examples follow:
    - The Department of Defense Global Positioning System (GPS) program is a major element of the company's aerospace business with continued activity in the independent verification and validation of navigation equipment software. Intermetrics won a \$1 million contract in 1983 with the Air Force Space Division to build an integrated data base of navigation equipment test data.
    - In April 1983 Intermetrics was awarded a \$1.8 million contract to produce software for a Navy helicopter life-cycle support facility.
    - Intermetrics is presently working on various stages of several major contracts involving the Space Shuttle, the Navy F-14 aircraft, the Department of Defense Joint Tactical Information and Distribution Systems, the Air Force B-1B aircraft, and the Boeing 767/757 commercial airplane.

- Intermetrics has also conducted research and development in real-time graphics display software technology. Work for the Navy led to the development of Graphics Real-Time Applications Display Support System (GRADS) for aircraft cockpits.
- Energy and petrochemical industry-related professional services include the development of on-line software for the building of chemical plant computer simulators for operator training and plant management studies, and the design of data base systems for maintaining chemical plant wiring information.
- Intermetrics' turnkey systems offerings include the following:
  - The FOCUS family of industrial productivity systems are microprocessor-based systems that can interface with the client's host computer for the provision of production data input.
    - With 50 installations, FOCUS ranges in price from \$32,000 to \$300,000 and performs the following functions for plastics and general manufacturing clients:
      - Measures machine and shift performance.
      - Provides job status continuously and forecasts job completion dates.
      - Automates production reporting.
      - Provides reports and data organized by machine, shifts, jobs, and crews.
    - During fiscal 1983 FOCUS systems were installed for Illinois Tool Works, Daugherty Brothers Company, and Hartzell Custom Plastics, Inc.
  - SCADA (Supervisory Control and Data Acquisition) systems are marketed to the petrochemical industry and run on Texas Instruments 9900 microcomputers and 990 minicomputers.
    - Pricing ranges from \$40,000 to \$500,000. Applications available include:
      - Tank gauging.
      - Blending.
      - Oil movement.
      - Pipeline control.
      - Offshore platforms.
      - Water injection control.
      - A general monitoring system.
    - There are currently 14 systems installed. Major liquid blending and metering SCADA systems were installed during fiscal 1983 in two Amoco plants and in the Cherry Point (WA) Arco plant.

## INTERMETRICS, INC.

Systems were also delivered in fiscal 1983 to 10 Texaco plants in Alabama, California, Florida, Georgia, North Carolina, Texas, and Virginia.

- SEID (Spacelab Experimentor Interface Device) is a programmable simulator for spacelab experiment interface validation. SEID allows verification of hardware and software before installation on spacelab vehicles.
  - SEID is a microprocessor-based system priced at \$20,000 to \$25,000. There are 13 installations.
- During fiscal 1983 Intermetrics entered into a joint agreement with Gould, Inc. to produce integrated software development packages used to build software for microprocessors. Package sales did not contribute significantly to fiscal 1983 revenue.
- In April 1983 Intermetrics introduced the first of the products, InterPas<sup>TM</sup> and InterCT<sup>TM</sup> compilers for the Pascal and C languages, replacing the company's PasPort Pascal cross-compiler product introduced in 1981.
  - The compilers run on DEC minicomputers operating under VMS, RSX, and UNIX and are used to develop software for the Intel 8086, Motorola 68000, and other 16-bit and 8-bit processors.
  - Compatible assemblers, linkers, librarians, and loaders are also being developed.
  - The software packages range in price from \$5,000 to \$10,000.

## INDUSTRY MARKETS

- Thirty-nine percent of Intermetrics' fiscal 1983 revenue was derived directly from the federal government. The remainder of revenue was derived from discrete and processing manufacturers and the energy industry.
- A three-year summary of the percentage of total revenue derived from major customers follows:

	2/83	2/81	2/80
U.S. Government and Government Agencies	39%	34%	37%
Rockwell International (a)	14%	16%	21%
IBM	20%	15%	-

- (a) A prime contractor of the U.S. Government for which Intermetrics functions as a subcontractor.



## GEOGRAPHIC MARKETS

- Virtually all of Intermetrics' fiscal 1983 revenue was derived from the U.S. Less than 1% was derived from The Netherlands.
- U.S. branch offices are located in Huntsville (AL), Huntington Beach (CA), East Lyme (CT), Titusville (FL), Baton Rouge, Bethesda (MD), Dayton, Warminster (PA), Houston, and Seattle.
- Foreign offices are located in Venezuela and The Netherlands.

## COMPUTER HARDWARE AND SOFTWARE

- Intermetrics' computer facilities include the following equipment:
  - 2 IBM 4341s.
  - 1 Data General ECLIPSE C300, AOS and RDOS.
  - 1 Data General ECLIPSE C330, AOS and RDOS.
  - 1 Data General ECLIPSE S140, AOS and RDOS.
  - 1 Data General NOVA 1200, RDOS.
  - 1 DEC VAX-11/780, UNIX.
  - 1 DEC VAX-11/780, VAX/VMS.
  - 3 DEC PDP-11/70s, PWB/UNIX and RSX-11M.
  - 1 DEC PDP-11/34, RSX-11M.
  - 1 Nanodata QM.
  - 1 Texas Instruments 990, DX10.
  - 1 Prime 750, PRIMOS.



## COMPANY HIGHLIGHT

**INTERMETRICS, INC.**  
733 Concord Avenue  
Cambridge, MA 02138  
(617) 661-1840

John E. Miller, President  
Private Corporation  
Total Employees: 440  
Total Revenue, Fiscal Year End  
2/28/81: \$17,000,000

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### PRINCIPAL BUSINESS

- Intermetrics, Inc., founded in 1969 by five M.I.T. senior staff members, provides professional services, turnkey products, and software packages primarily to the federal government and manufacturing industries.

### FINANCIALS (\$ thousands)

	2/81	2/80	2/79	2/78	2/77
Revenue	\$17,000	\$12,000	\$ 8,100	\$ 5,500	\$ 4,600
Percent increase over previous year	42%	48%	47%	20%	31%

- Management projects fiscal 1982 revenue of \$24 million.

### SOURCES OF REVENUE

96% Professional services.  
4% Turnkey systems.

### EMPLOYEES

Technical	375
Management, administrative, and support	<u>65</u>
	440

### PRODUCTS AND SERVICES

- Intermetrics' professional services expertise includes high order languages and compilers; navigation and communication systems; guidance and control theory; industrial management systems; electronic and mechanical design; avionics; and prototype fabrication. The company also provides independent system verification and validation services. The majority of revenue has been derived from professional services contracts performed for the federal government in the following areas:

## INTERMETRICS, INC.

- Navigation and weapons systems analysis, mathematical modeling, and simulation.
  - Flight software development including executives, operating systems, and applications programs.
  - Support software design and implementation including assemblers, high order languages, compilers, and simulators.
  - Graphics and data base management software systems.
  - Software verification and validation.
  - Hardware/system specification and design.
  - Computer interface equipment design and construction.
  - Systems integration.
- Major contract programs performed by Intermetrics in the area of advanced avionics include the following:
    - The company has provided analysis, software, and system integration for the user equipment segment of the NAVSTAR (satellite) Global Positioning System (GPS). Work performed includes the development of flight software, post-flight development tools, analytical support, and algorithm development.
      - Intermetrics has also developed navigation performance simulators permitting interactive testing of flight software.
      - The company is currently the SAMSO software verification and validation contractor for GPS Phase 2.
    - In July 1978, Intermetrics entered into a five-year contract with the Naval Air Development Center (NADC) to produce Advanced Integrated Display Systems (AIDS) software. The modular interactive avionics system will display and receive all flight and mission information from the aircraft crew.
      - Operational flight software to be designed includes the operating system, display software, and control and utility programs.
      - Support software development will include display and command formatters, graphics run-time routines, and an interactive flight simulator.
    - Intermetrics is also evaluating and developing tools for the NADC's Joint Tactical Information Distribution System (JTIDS). The company has identified and assessed system deficiencies, developed Relative Navigation system performance specs, and performed algorithm development.
    - As the software contractor for the Air Force Avionics Laboratory's Digital Avionics Information System (DAIS), Intermetrics prepared mission software standards and developed operational flight executive and applications software for the system. Applications included:

## INTERMETRICS, INC.

- Terrain following.
  - Navigation fixes and control.
  - Target acquisition.
  - Stores management.
  - Waypoint steering.
- Intermetrics' expertise includes the design, development, and evaluation of high order languages, compilers, and associated support software. Examples of compiler development contracts include:
  - HAL/S, a high order language for use with space and aircraft applications, uses modular construction and structured programming techniques. In use since 1973, HAL/S was designed under a contract to NASA and is the official language used in the Space Shuttle on-board computers.
    - Intermetrics recently developed a HAL/S compiler for the NASA Standard Spacecraft Computer.
    - Complete software development facilities for HAL/S are provided by Intermetrics, and include avionics simulators, program statistics, and comprehensive diagnostics.
  - Intermetrics has been under contract to the Navy since 1973 for the development of the SPL/I high order programming language and compiler. SPL/I has been designated as a standard language for digital signal processing applications by the Navy, and by the Department of Defense as a standard language for tactical systems applications.
    - SPL/I, written in FORTRAN, has been put into its fourth release.
  - The company has been a continually funded contractor for the Ada high order language since 1975, participating with the Department of Defense (DOD) in Ada development. Intermetrics is developing an Ada translator and compiler front end for the DOD.
    - Intermetrics is currently designing the first full language compiler to be made available publicly by the government.
    - Intermetrics is now under contract to the U.S. Air Force to develop a complete Ada programming environment for full life cycle support of Ada software.
- Intermetrics' turnkey system offerings consist of the following products:
  - FOCUS plantwide machine monitoring systems, first installed in 1975, are self-contained microprocessor-based systems that can be interfaced with the client's host computer for the provision of production data input. With 20 installations, FOCUS is priced in the \$32,000 to \$300,000 range and performs the following functions for clients in the plastic and general manufacturing industries:

- Measures machine and shift performance.
  - Provides job status continuously and forecasts job completion dates.
  - Automates production reporting.
  - Provides reports and data organized by machine, shifts, jobs, and crews.
- SCADA (Supervisory Control and Data Acquisition) systems are marketed to the petrochemical industry and run on Texas Instruments' 9900 microcomputers and 990 minicomputers. Priced at \$500,000, there are two systems installed. Applications include:
  - Tank gauging.
  - Blending.
  - Oil movement.
  - Pipeline control.
  - Offshore platforms.
  - Water injection control.
  - A general monitoring system.
- SEID (Spacelab Experimentor Interface Device) is a programmable simulator for spacelab experiment interface validation. SEID allows verification of hardware and software before installation on spacelab vehicles.
  - SEID is a microprocessor-based system priced at \$20,000. There are 13 installations.
- Intermetrics will also develop customized turnkey systems or applications. Examples include systems for:
  - General manufacturing.
  - Custom report formatting.
  - Shop floor monitoring.
  - Assembly line monitoring and operations.
  - Secondary operation monitoring.
  - Automatic welding machines.
  - Screw, stamping, and NC machines.
  - Family molds, injection and gang molding.
  - Die casting.
- In May 1981, Intermetrics introduced PasPort 8086, a Pascal cross-compiler which allows users to develop and pretest applications software for Intel's 8086 microprocessor on DEC PDP-11 and VAX equipment. The package also acts as a productivity aid, allowing several programmers to work simultaneously on a shared system. PasPort, with 12 installations, runs under Unix and RSX-11M, and is priced at \$5,000.
- The company has plans to introduce a compiler for Motorola's 68000 chip in February for use on DEC PDP-11 and VAX equipment.

## INDUSTRY MARKETS

Federal government	60%
Commercial	40%

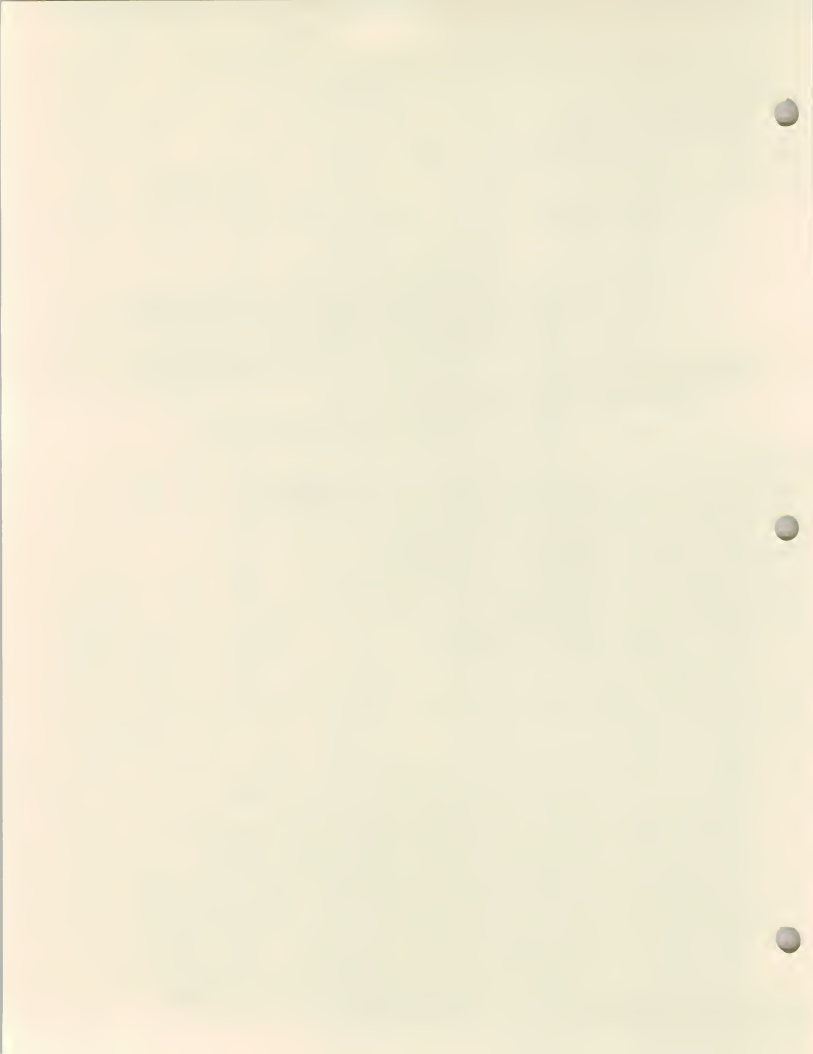
## GEOGRAPHIC MARKETS

U.S.	99%
International	1%

- Branch offices are located in Huntington Beach, CA; Dayton, OH; Pearland, TX; Warminster, PA; Huntsville, AL; Bethesda, MD; Baton Rouge, LA; Duncan, OK; Cape Kennedy, FL; East Lyme, CT; and Seattle, WA.
- An international office is located in The Hague, The Netherlands.

## COMPUTER HARDWARE AND SOFTWARE

- Intermetrics' computer facilities include the following equipment:
  - 1 IBM 370/158-3, MVS and TSO.
  - 1 Data General ECLIPSE C300, AOS and RDOS.
  - 1 Data General ECLIPSE C330, AOS and RDOS.
  - 1 Data General ECLIPSE S140, AOS and RDOS.
  - 1 Data General NOVA 840, RDOS.
  - 1 Data General NOVA 1200, RDOS.
  - 1 DEC VAX 11/780, VAX/VMS.
  - 3 DEC PDP-11/70, PWB/UNIX and RSX-11M.
  - 1 DEC PDP-11/34, RSX-11M.
  - 1 Nanodata QM.
  - 1 Texas Instruments 990, DX10.
  - 1 Prime 750, PRIMOS.





## COMPANY HIGHLIGHT

### INTERNATIONAL COMPUTAPRINT CORPORATION

475 Virginia Drive  
Ft. Washington, PA 19034  
(215) 641-6000

Hans Nickel, President  
Wholly owned subsidiary of  
Reed Holdings (London)  
Total Employees: 1,000  
Total Revenue, Fiscal Year  
End 3/31/81: \$20,000,000

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**PRINCIPAL BUSINESS** International Computaprint Corporation (ICC) was founded in Pennsylvania in 1966. The company provides computerized photocomposition services as a subsidiary of its London parent, Reed Holdings.

### FINANCIALS

- ICC's FY 1981 revenues reached \$20 million, an 18% increase over 1980 revenues of \$17 million. ICC management expects FY 1982 revenues to reach \$25 million, which would be an increase of 25%.

### SOURCE OF REVENUE

Photocomposition services	100%
---------------------------	------

### SUBSIDIARY

- ICC has one subsidiary operation, GraphCom, Inc., in Horsham (PA). GraphCom writes software for the photocomposition of mathematical and scientific notation (i.e., graphs, charts, tables, chemical compounds, etc.).
  - There are approximately 50 programmers employed by GraphCom who write software primarily for proprietary ICC use.

### EMPLOYEES

- The 1,000 ICC employees are divided approximately as follows:

- Marketing and sales	4
- Software service/customer support	70
- Computer operations	~ 900
- General and administrative	<u>30</u>
	1,000

### PRODUCTS AND SERVICES

- All ICC's business comes from designing and implementing computerized typesetting and photocomposition systems.

## INTERNATIONAL COMPUTAPRINT CORPORATION

- ICC prepares customer master files by keyboarding data from original customer documents (manuscripts, printed pages, 3x5 cards, questionnaires, or typed pages).
- Through ICC's proprietary Data Acquisition and Correction System (DACS), files are structured, updated, revised, and validated with minimal manual intervention.
- A proofreading process follows and the master file is built and ready for composition. Data is then formatted for input to ICC's three III Videocomp Typesetters.
  - ICC's software is used to sequence and format the information for computerized composition.
- The final products are fully composed and typeset pages on paper or film positives ready for platemaking or microfilm.
- ICC's automated composition services are targetted to publishers, the U.S. Patent Office, and Bell Telephone companies.

### GEOGRAPHIC MARKETS

- ICC's business is in the mid-Atlantic region, primarily New England to Washington, DC, where the publishing industry is concentrated. Most of the company's revenue stems from the Metropolitan New York area.
- There are three ICC input centers which do not house computer equipment:
  - Newark, DE (input conversion and proofreading).
  - Alexandria, VA (editing and input conversion).
  - Tampa, FL (proofreading and data base computing).
- The company does not derive revenue from international sources.

### COMPUTER HARDWARE AND SOFTWARE

- ICC's data center is located at its headquarters in Fort Washington, PA.
  - Currently there are three Univac 70/6s installed, operating under OSM/VS.
  - One IBM 4341 is being installed to replace another Univac mainframe. Another 4341 will be installed in January or February 1982.
  - 10 Data General Eclipse S/230 and S/130s are used for data input.
- For development purposes, GraphCom uses:
  - 3 Data General Eclipses.

*Seig. Collier*

*Marcus Bayuck,  
VP, Marketing  
956-6272*

#### COMPANY HIGHLIGHT

INTERNATIONAL COMPUTER  
TECHNOLOGY CORP.  
465 California St., Suite 318  
San Francisco, CA 94104  
(415) 788-5277

Howard Bromberg, President  
Private corporation  
Total employees: 12  
Total revenues, fiscal year  
end 12/31/76: \$400,000\*

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**COMPANY BACKGROUND:** International Computer Technology Corp. (ICT), called International Computer Trading Corp. until March of 1977, provides consulting services, systems development, applications software development, and custom study work.

#### KEY PRODUCTS AND SERVICES

- Ninety percent of ICT revenues are generated by the sale of professional services. These fall into three categories:
  - Primary revenues are derived from the design and development of custom applications software and contract programming. Typical applications include payroll, inventory control, and banking (such as demand deposit accounting).
  - ICT also designs and develops systems software on a custom basis. Products include language translators and operating systems. Some of these programs are marketed as independent packages.
  - ICT also provides management consulting, marketing, and technical information for its clients.
- The sale of its software in standard package form generates approximately 10% of ICT revenues.

**APPLICATIONS:** Applications revenues were approximately half from general business services and half from specialty services such as banking.

**INDUSTRY MARKETS:** ICT does not service any particular industry, although it seems to lean toward noncommercial clients. Clients have included the University of California, Los Angeles County Government, utilities, computer manufacturers, and accounting firms.

\* Estimate by INPUT

June/1977

**INPUT**

## COMPANY HIGHLIGHT/INTERNATIONAL COMPUTER TECHNOLOGY CORP.

**GEOGRAPHIC MARKETS:** Eighty percent of total revenues are derived from the western 13 states in the mountain and Pacific coast regions. Approximately 15% of ICT revenues are generated by international clients in France and Japan. Remaining revenues are derived from distributed areas including Canada, Austria, and the Philippines.

### COMPUTER HARDWARE AND SOFTWARE

- ICT uses OSI for its processing needs. Two teleprinter printers on dial-up lines are used to access OSI's computer.
- In addition, the company is negotiating to buy an NCR 8250 business applications machine for in-house software development.

## COMPANY HIGHLIGHT

INTERNATIONAL MANAGEMENT  
SYSTEMS CORPORATION  
4676 Admiralty Way  
Marina del Rey, CA 90291  
(213) 822-2022

✓ "Player"  
Jerry Plier, President  
Private corporation  
Total employees: 40  
Total revenues, fiscal year  
end 12/31/77: \$1,500,000\*

---

### THE COMPANY

- International Management Systems Corporation (IMS) was founded in October 1973 by Jerry Plier, John H. Goetz (VP Marketing), and Thomas Ballantyne (VP Market Development & Personnel).
- Revenues of \$950,000 in 1976 are expected to grow by 58% to reach \$1.5 million in 1977. Top management claims the company has been profitable every month since founding.
- IMS provides contract programming, systems design, and software packages for accounting applications to its approximately 70 clients, principally manufacturers and distributors.

### KEY PRODUCTS AND SERVICES

- Sixty to seventy percent of IMS revenues are generated by consulting, technical services, systems design, and contract programming. The remaining 30% to 40% are derived from the sale of proprietary software products for IBM mainframes and minicomputers.
- IMS will modify existing client software or develop new software for its clients.
- Proprietary software packages are written for IBM mainframes and small business systems.
  - The IBM mainframe packages, written in COBOL, require a minimum of 85K Core and will run on either IBM 360 series or 370 series mainframes. The applications include general ledger, accounts payable, purchase order, payroll/personnel, and fixed asset systems. All are batch software systems.
  - Less sophisticated versions of this software are written in RPG-2 for IBM System 3 and System 32 equipment. Also batch systems, these packages include all the applications available with the 360/370 packages plus accounts receivable.

\* Estimate by IMS

June/1977

INPUT

## COMPANY HIGHLIGHT/INTERNATIONAL MANAGEMENT SYSTEMS CORP.

- Three full time salesmen market IMS' products and services.

**APPLICATIONS:** All IMS products and services provide general business financial accounting applications to the general marketplace.

### INDUSTRY MARKETS

- IMS has three sets of clients for its three services:
  - Large system software clients include manufacturing, distribution, insurance, service, medical, and real estate development companies, and state and local government agencies.
  - Small systems software users include property management, manufacturing, distribution, service, and travel firms.
  - Consulting, technical services, systems development, and contract programming users are from all industry sectors except the federal government and the military.
- IMS products are not industry specialized.

### GEOGRAPHIC MARKETS

- The majority of consulting clients are located on the Pacific Coast states.
- Software, installed throughout the U.S., is principally located in Pennsylvania, New York, Ohio, Illinois, and Michigan, Colorado, and Pacific Coast.

**COMPUTER HARDWARE AND SOFTWARE:** IMS does not have any inhouse hardware. Programming and systems development are all performed through a local service bureau.

## COMPANY BRIEF

Cross Industry: Graphics

### **International Microcomputer Software, Inc. (IMSI)**

1299 Fourth Street  
San Rafael, CA 94901  
(415) 454-7101

CEO: Geoffrey B. Koblick, President  
Private Company  
Founded: 1983

Employees: 25 (12/86)  
Revenue (FYE 6/30/86): \$4,500,000\*

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**The Company:** IMSI is a publisher and distributor of graphics and desktop publishing software, and peripherals for IBM PCs and compatibles

### **Sources of Revenue:**

- Application Software (75%)
- Peripherals (25%) (multigraphic boards and input devices)

### **Key Products:**

- Application Software Products (Utilizes IBM and compatible microcomputers)
  - Dr. HALO II<sup>T.M.</sup>, icon-driven freehand graphics software
  - Turbo HALO<sup>T.M.</sup>, high resolution color graphics development kit for Turbo Pascal programmers
  - IMSI Designer<sup>T.M.</sup>, inexpensive computer-aided design software
  - IMSI Galleria<sup>T.M.</sup>, a collection of graphics libraries that work in conjunction with print and image capture software
  - Four-Point Graphics<sup>T.M.</sup>, presentation graphics and animation software
  - Data Safe<sup>T.M.</sup>, data protection software for major microcomputers using Data Encryption algorithms
  - Investment Manager<sup>T.M.</sup>, menu-driven investment monitoring software
  - One Look<sup>T.M.</sup>, visual macro utility that can condense up to 1,500 keystrokes into a single function key
  - PagePerfect<sup>T.M.</sup>, desktop publishing software that integrates page layout, composition, word processing, and image processing
  - Desktop Publisher's Graphics, moderately-priced graphics package designed for desktop publishing needs

### **Target Industries:**

- Cross industry (100%)
- Heavy concentration in industries requiring graphics capabilities

\*Company estimate

December 1986

**Geographic Markets:**

- U.S. and Canada (98%)
- Non-U.S. (2%)
- IMSI sells its products through distributors and retailers including Micro D, Softsel, and Entre
- With the introduction of PagePerfect, IMSI will shift its distribution policy to meet the demands of a high end product. The first shift in IMSI's policy will be a move toward deals with systems integrators and value-added resellers. The company will also pursue vertical end-user markets.

**Significant Events:**

- Both PagePerfect and Desktop Publishers Graphics were introduced in November 1986
- In the past three years, IMSI has experienced a compound annual growth rate of 34%. Revenues doubled during the past year.

December 1986



Dropped

# COMPANY HIGHLIGHT

INTERNATIONAL TELECONTROL CORPORATION  
P.O. Box 95  
Edgemont, PA 19028  
(215) 353-3232

William Fary, President  
Private corporation  
Total employees: 15  
Total revenues, fiscal year  
end 12/31/76: \$500,000\*

12/31/76 \$450,000 (F)

## THE COMPANY

- International Telecontrol Corporation (ITC) was founded in 1967 by President William Fary. It provides professional services and applications software packages.
- It is entering the micro-computer-based small business systems market by marketing a turnkey system for Business Systems Products of Irvine, California.

## KEY PRODUCTS AND SERVICES

- Eighty percent of ITC revenues are generated by professional services contracts. Twenty percent are from the sale of applications software packages originally developed through professional services contracts.
- Professional services include consulting and contract programming. Individual projects have included systems design, terminal hardware design, mortgage loan software systems development, housing and land use software development, and market research projects. ITC has about four consulting and programming clients at this time, although it has served a total of 150 customers since 1967.
- ITC has two software products - Tele Con/1 (Telephone Conversation/1), and an automated safe deposit system - with a total of 28 installations.
  - Tele Con/1 is an automated cost allocation system for large telephone users. Introduced two years ago, it is installed at 20 sites and costs \$8,000 to \$24,000 depending on the number of telephone extensions and options ordered.
  - The automated safe deposit system was introduced in 1971 but has only eight customers. The software costs \$8500.
- The company's newest product, Adviser II, was developed by Business Systems Products, Inc. of Irvine California. Based on the Computer Automation LSI-2 computer, it is a turnkey small business system. ITC provides marketing and software; Business Systems will provide maintenance.

\* INPUT estimate

October 1977

COMPANY HIGHLIGHT/INTERNATIONAL TELECONTROL CORPORATION

APPLICATIONS ITC provides primarily industry and applications specialized software and services.

INDUSTRY MARKETS Since 1967, ITC has had customers in a variety of industries: banking, wholesale distribution, education, insurance, discrete and process manufacturing, hospital, and transportation. The majority of Tele Con/1 customers are banks.

GEOGRAPHIC MARKETS ITC concentrates marketing efforts in the Northeast. However, customers are also located in Indiana, Illinois, Ohio, Texas, and California. There are no international clients.

COMPUTER HARDWARE AND SOFTWARE The company does not have any in-house hardware. It uses customer computers or service bureaus for its processing and testing.

## COMPANY PROFILE

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### **INTERNET SYSTEMS CORPORATION**

200 West Madison Street  
Suite 1700  
Chicago, IL 60606  
(312) 630-0050

W. Ron Mahoney, President and CEO  
Private Corporation  
Total Employees: 260  
Total Revenue, Fiscal Year End  
12/31/90: \$20,000,000\*

\*INPUT estimate

---

#### **The Company**

Internet Systems Corporation, founded in 1981, markets and supports the ATLAS family of international, wholesale banking application software products for Tandem NonStop computers. The company also provides various professional services to its software clients.

#### **Key Products and Services**

The majority of Internet's revenue is derived from application software products and associated maintenance services. The remainder is derived from professional services, including training, implementation planning, customization, and consulting.

ATLAS is an international banking system for Tandem NonStop computers that provides 24-hour processing for all areas of wholesale banking. The product monitors deals from input through transaction life, processing every instrument, security, or commodity which can be bought or sold, borrowed or lent, at a price or rate.

- The system supports the following applications:
  - Foreign exchange
  - Money market and securities
  - Commercial lending
  - Funds transfer
  - Current accounts
  - Facilities and limits
  - Dealer information
  - Accounting and financial reporting
  - Communications interfaces (Telex, SWIFT, CHIPS)
  - Testing and documentation utilities
- ATLAS is currently installed at over 100 sites supporting 24 clients worldwide.

Internet also provides training, customized documentation, telephone support, and on-going maintenance services to its software clients.

**Industry Markets**

One hundred percent of Internet's revenue is derived from the banking and finance industry.

Major clients include Deutsche Bank AG, Sumitomo Trust & Banking, Swiss Volksbank, Royal Bank of Canada, and National Westminster plc.

**Geographic Markets**

INPUT estimates a significant portion of Internet's revenue is derived from outside the U.S.

In addition to its corporate headquarters in Chicago, Internet has also established a European center in Woking, England and branch offices in New York, Hong Kong, Paris, Frankfurt, Stockholm, Singapore, New Zealand, Tokyo, and the Netherlands.

## COMPANY PROFILE

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### **INTERSOLV, INC.**

3200 Tower Oaks Boulevard  
Rockville, MD 20852  
(301) 230-3200

Kevin J. Burns, Chairman, President,  
and CEO  
Public Corporation, NASDAQ  
Total Employees: 450 (4/91)  
Total Revenue, Fiscal Year End  
4/30/91: \$71,846,000

---

### **The Company**

Intersolv, Inc. provides computer-aided software engineering (CASE) systems software products for mainframes, workstations, and local-area networks (LANs). These products provide configuration management capabilities for desktop/workgroup development environments and address the design, generation, and maintenance/re-engineering phases of the lifecycle development process. The company currently has over 100,000 users of its products at 10,000 customer sites worldwide.

Intersolv was formed in March 1991 with the merger of Sage Software, Inc. and Index Technology Corporation. Sage acquired all the outstanding capital stock of Index in exchange for approximately 5.1 million shares of Sage common stock valued at approximately \$50 million. The acquisition was accounted for as a pooling of interests.

- Index Technology, founded in 1983 and based in Cambridge (MA), developed and marketed CASE products for systems analysts and designers.
  - The company's flagship product, Excelertor<sup>®</sup>, has an installed base of more than 27,000 copies worldwide.
  - Index had calendar 1990 revenue of \$46.7 million.
- Sage Software, based in Rockville (MD), provided CASE development tools for IBM-based business information tools, primarily in the areas of application generation and configuration management.
  - Sage had revenue of \$26.5 million for the fiscal year ending April 30, 1990.

Intersolv's product strategy is to provide integrated CASE (I-CASE) with an open architecture, including tools that can be used on a standalone basis, are fully integrateable with each other, and are integrateable with complementary products, even competitive ones.

In April 1991, Intersolv and IBM jointly announced that Intersolv would continue and expand upon the existing relationship of Index as an AD/Cycle Business Partner of IBM.

- As part of the relationship, IBM will jointly market the Excelerator products, the Design Recovery Products for Excelerator, and certain PVCS products. IBM will not market Intersolv's APS product.
- IBM currently owns 2.4% of Intersolv stock.

Effective April 30, 1991, Intersolv sold its Demo II and PLink products (originally acquired by Sage Software during 1989) to Voyageur Software. The products generated revenue of \$3.1 million and expenses of \$1.7 million during fiscal 1991.

Intersolv's pro forma fiscal 1991 revenue reached \$71.8 million, a 15% increase over pro forma fiscal 1990 revenue of \$62.6 million.

- Fiscal 1991 net losses include a one-time, nonrecurring charge of \$26.5 million (pretax) associated with the acquisition of Index and the resulting reorganization.
- In the three-year summary that follows, financials reflect the pooling-of-interests acquisition of Index.

**INTERSOLV  
THREE-YEAR FINANCIAL SUMMARY**  
(\$ millions, except per share data)

ITEM	FISCAL YEAR		
	4/91	4/90	4/89
Revenue	\$71.8	\$62.6	\$49.8
• Percent increase from previous year	15%	26%	29%
Income (loss) before taxes	\$(30.8)	\$8.5	\$6.9
• Percent increase (decrease) from previous year	(a)	23%	N/A
Net income (loss)	\$(23.3)	\$5.7	\$4.1
• Percent increase (decrease) from previous year	(a)	39%	1%
Earnings (loss) per share	\$(2.11)	\$0.50	\$0.40
• Percent increase (decrease) from previous year	(a)	25%	(5%)

(a) Fiscal 1991 results include nonrecurring charges of \$26.5 million pretax (\$20.1 million after taxes or \$1.82 per share) associated with the acquisition of Index and the resulting reorganization.

Fiscal 1991 revenue growth was attributed to continued growth in the CASE market, increased demand for the company's PC-based products, expansion of sales coverage, and a broadening of the company's product offerings.

- Domestic revenue grew 5%. A 25% revenue growth in application generation and configuration management products was offset by a 10% decline in revenue from analysis and design products.
- International revenues grew 65% during fiscal 1991. Revenue from analysis and design products grew 100%, reflecting the increased demand for CASE products and the establishment of subsidiaries in France and Germany late in fiscal 1990.
- The increase was offset by a 10% decline in the application generation business due to a reorganization of the international operations and a change in several distributor relationships.

- Configuration Management revenues increased 9% during the year.

Product development expenses were approximately \$21.3 million (30% of revenue) in fiscal 1991, compared to \$17.0 million (27% of revenue) in fiscal 1990, and \$13.2 million (27% of revenue) in fiscal 1989.

As of April 1991, Intersolv had 450 employees, segmented as follows:

Marketing, sales, and field operations	242
Product development and technical support	158
General and administration	<u>50</u>
	450

Major competitors include KnowledgeWare, Bachman, and LEGENT.

## Key Products and Services

Approximately 83% of Intersolv's fiscal 1991 revenue was derived from CASE software product licenses and 17% from associated maintenance services.

Intersolv currently markets products that address four sectors of the CASE market:

- Analysis and design
- Application generation
- Redevelopment
- Configuration management

### *Analysis and Design Tools:*

Exceleator is a PC-DOS-based toolset for analysis, design, and documentation of MIS-oriented systems.

- Exceleator creates and revises system diagrams and charts; validates and cross-references design data, prototypes screens and reports; and creates end-user and system-related documentation before the system is build.
- Exceleator runs on IBM PS/2, PC AT, PC XT, and compatibles, as well as on DEC, Sun, and Apollo workstations. Exceleator II for OS/2 will be generally available in March 1992.



PC Prism is a PC-based software product for planning business systems. The product helps organizations to create enterprise systems and high-level data models, and transfers information to Excelerator prior to systems development.

#### *Application Generation:*

APS is an application generator that reduces development time and minimizes the cost of building large-scale applications in COBOL.

- APS runs on mainframes (APS/MVS) and on the PC (APS for PC-DOS and APS for OS/2) in a LAN environment.
- Customers can use APS on a standalone basis or connected to an analysis-and-design tool like Excelerator or KnowledgeWare's IEW.
- APS supports all of IBM's Data Base/Data Communications systems, including DB2, IMS, and CICS.
- APS is used by more than 9,000 developers worldwide.

#### *Redevelopment:*

Design Recovery for Excelerator is an integrated set of reverse-engineering tools that scans COBOL programs; recovers data, procedural codes, and screen maps; and stores them in the Excelerator repository for later use. General availability is scheduled for December 1991.

#### *Configuration Management:*

The PVCS Series is a family of configuration management products for developers on PCs and LANs. Components include the following:

- PVCS-Version Manager tracks the various versions of programs and documentation for developers on PCs and LANs under PC-DOS, OS/2, AIX, and UNIX.
- PVCS-Configuration Builder tracks which software modules are included in each application system.
- PVCS-Production Gateway allows PVCS to be connected to IBM mainframes and to communicate with host-based library managers.

- PVCS-Professional Editor automates the process of creating and changing computer programs. It works with any language and operates on the PC with DOS or OS/2.

Intersolv provides maintenance and enhancement services to licensed customers at no charge during the initial 90 days of use. Thereafter, maintenance services are offered for an annual maintenance service fee, which is paid in advance and generally is 17% of the current license fee for the product. Services generally include software updates and telephone support for technical product assistance.

### Industry Markets

Intersolv's revenue is derived from clients across industries, including computer, software, and electronics firms; consumer products and retailing; insurance and financial services; banking; federal, state, and local government; manufacturing; transportation; aerospace; and other.

The company markets its products to small, medium, and large development projects within major corporations. Customers are generally Fortune 500 organizations.

### Geographic Markets

Approximately 61% of Intersolv's fiscal 1991 revenue was derived from North America and 39% from international operations, including export sales. A three-year geographic source of revenue summary follows:

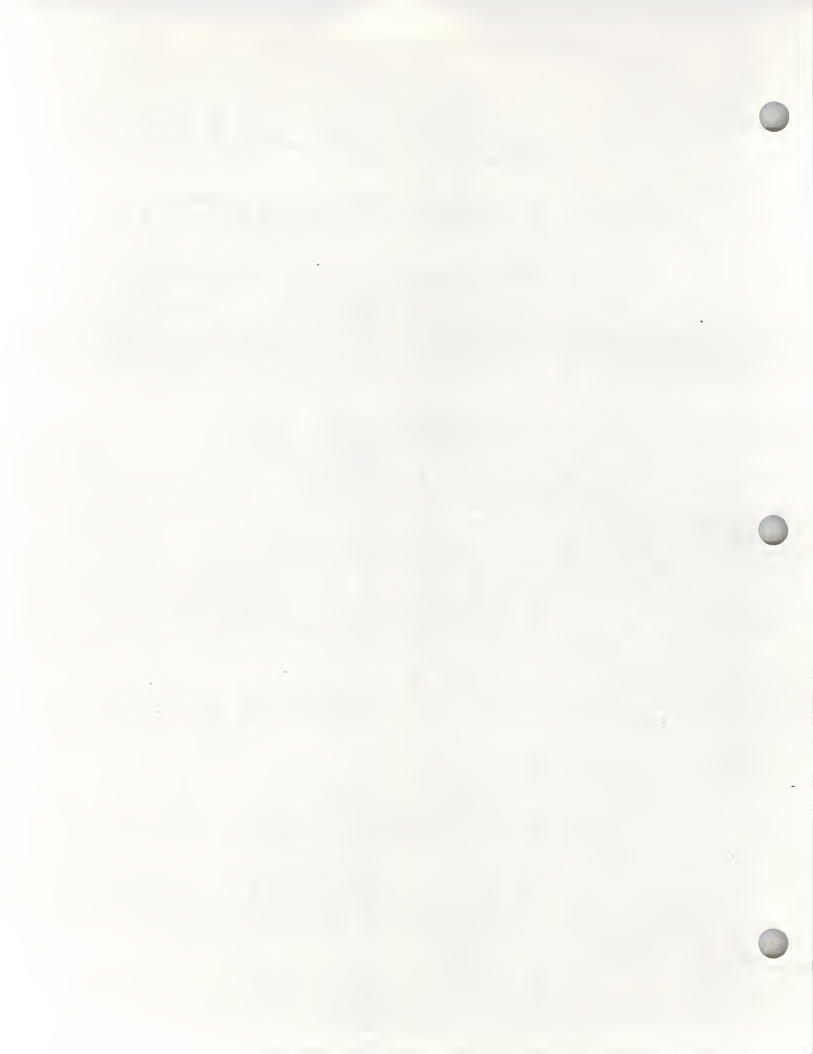
**INTERSOLV  
THREE-YEAR GEOGRAPHIC SOURCE OF REVENUE SUMMARY  
(\$ millions)**

ITEM	FISCAL YEAR					
	4/91		4/90		4/89	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
North America	\$44.0	61%	\$38.1	61%	\$35.2	71%
International						
- Exports	10.5	15%	12.5	20%	10.0	20%
- Europe	14.8	21%	10.0	16%	3.9	8%
- Australia	2.5	3%	2.0	3%	0.7	1%
<b>TOTAL</b>	<b>\$71.8</b>	<b>100%</b>	<b>\$62.6</b>	<b>100%</b>	<b>\$49.8</b>	<b>100%</b>

In North America, Intersolv markets its products through direct sales (face-to-face) and telesales. U.S. offices are in Atlanta, Beaverton (OR), Cambridge, Chicago, Dallas, Los Angeles, and Tarrytown (NY).

Outside North America, Intersolv markets its products through four subsidiaries in the U.K., France, Germany, and Australia and also through a network of dealers and distributors.

- Currently, Intersolv has 65 international dealer/distribution agreements, 25 of which are considered exclusive. These dealers/distributors operate in 24 countries, predominantly in Europe and the Asia-Pacific.



*Dropped*

#### COMPANY HIGHLIGHT

INTERSTATE COMPUTING INC.  
344 Camp Street  
New Orleans, LA 70130  
(504) 525-1295

↓  
Daniel A. Ellis, President  
Public corporation  
Total employees: 10  
Total revenues, fiscal year  
end 1/31/77: \$300,000.

*F3 150,000*

*1/31/70 - \$1 mil.*

#### COMPANY BACKGROUND:

- Interstate Computing Inc. (ICI) was started in 1969 as a public company. In 1971, Ellis acquired control of the company and became its president.
- Originally a batch service bureau, ICI now primarily does software development for minicomputers and computer education courses.

#### OVERALL ASSESSMENT:

- ICI provides contract programming primarily to first time mini-computer users. It also runs a technical school for computer programming and operations.
- The batch processing revenues were severely hurt by IBM System 3 intrusion. As a result of their lack of profitability, batch services have been subcontracted and now provide a small source of profit. ICI's software business has been positively impacted by minicomputers. The company sees an opportunity to increase its market share through offering software to distributed computing end users. However, management claims that New Orleans, a conservative business community, is slow to move from large centralized mainframes to distributed minicomputers.
- Fifty percent of ICI software sales are to a sister company, Compunetics, Inc., a turnkey minicomputer systems house. Compunetics does all the marketing for ICI.
- When Ellis assumed control of ICI, the company had a negative net worth of \$1 million. In the last six years, that has been reduced to \$100,000 and management claims the company has an operating profit. Current liabilities in 1976 were \$31,000 greater than current assets. Subcontracting out its batch processing has contributed to a 50% decrease in employees since 1975 and a concomitant decrease in expenses.

January 1977

87.1

INPUT

## COMPANY HIGHLIGHT/INTERSTATE COMPUTING INC.

### KEY PRODUCTS AND SERVICES:

- ICI offers applications software products and services to nine clients in the wholesale distribution industry. Contract programming includes inventory control, accounts receivable and payable, general ledger, management reports, and payroll/personnel. All programming is performed on a fixed price basis.
- ICI also operates the EDPI Computer Training School, as educational facility with approximately 100 students per year. Although client personnel is welcome to attend classes, the school is run as an independent organization open to the public.

APPLICATIONS: All ICI software products applications are for general business.

### INDUSTRY MARKETS:

- In 1975, ICI performed batch processing for six industries: banking and finance, wholesale distribution, education, state and local government, discrete manufacturing, and construction.
- In 1977, its software services revenues will be derived solely from the wholesale distribution industry.

GEOGRAPHIC MARKETS: All ICI clients are located in Louisiana and the Southeast.

COMPUTER HARDWARE AND SOFTWARE: ICI uses General Automation, Cincinnati Milacron, GRI, and Sycor minicomputers in offering its services. Its batch services, formerly processed on an inhouse Honeywell 2200 are now subcontracted to a company with similar Honeywell equipment.

*Follow up  
BURN  
EATON*

*Ron Carlyn*

## COMPANY HIGHLIGHT

### ITEL DATA SERVICES GROUP

One Embarcadero  
San Francisco, CA 94911  
(415) 955-0000

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#### THE COMPANY

- Itel Data Services Group (DSG) was formed in 1969 by its parent organization, Itel Corporation. Over a period of ten years, Itel purchased close to 40 companies to expand the DSG operation.
- At the end of its fiscal year, December 31, 1978, Itel reported revenues of \$98.8 million from DSG, an increase of 28% over 1977's \$77 million. Although revenues increased substantially during this period, the level of profitability for Data Services declined in 1978 and a loss was incurred in the fourth quarter. In early 1979, DSG management reviewed the various divisions and determined that nine divisions should be sold because they did not meet Itel's criteria for return on investment and growth. A formal plan was adopted on March 23, 1979 to dispose of the divisions. It should be noted that the decision to sell these operations preceded DSG's awareness of the severity of Itel's financial situation.
- A description of these nine divisions and the disposition thereof follows:
  - Three of the divisions were purchased by Computer Sciences Corporation for approximately \$15.75 million. These were:
    - The Professional Services Division (PSD) which provides computer services primarily to accounting firms and business organizations. Services include batch processing and the sale of minicomputers for accounting functions. PSD operated five data centers, one in Oakland (CA), one in Lansing (MI) and three in the Los Angeles area. Itel's 1978 revenues from PSD were approximately \$12.8 million.
    - The DPD Batch Division (DPD) provides batch processing services, primarily accounting functions, to small business firms. DPD's customer base is regional with clients located near one of its four data centers: White Plains (NY), Cleveland, (OH), Pittsburgh (PA), and Chicago (IL). Revenues from DPD were approximately \$15.5 million in 1978.
    - The On-line Services Division (OLS) operates a data center in White Plains (NY). OLS provides a number of real-time trans-

## COMPANY HIGHLIGHT/ITEL DATA SERVICES GROUP

action processing services to its clients, including applications that provide order entry, invoicing, sales analysis, inventory control, and other management reports. OLS's 1978 revenues were approximately \$5.5 million.

- The Banking Services Division (BSD) provides an integrated, on-line central information file with subsystems for demand deposits, savings deposits, certificates of deposit, commercial loans and mortgages and general ledger. BSD operated a data center in White Plains (NY) and a data capture center in Boston (MA). The Boston center was sold to the First National Bank of Boston and the White Plains center is in the process of being closed. BSD had revenues of about \$2.7 million in 1978.

*Subsequently  
acquired by  
Pandaemonium*

The Medical Data Division (MDD), located in Long Beach (CA), provides batch and remote job entry processing services to 32 hospitals in the Los Angeles area. MDD was sold to Imperial Computer Services. Revenues in 1978 from MDD were approximately \$3.2 million.

- The Health Control Division (HCS), headquartered in Dallas, markets minicomputers and related software to hospitals. The software provides general and patient accounting, inpatient/outpatient billing, third party billing, patient movement and general accounting applications. HCS was sold back to its original owner, Douglas Kemp. Itel's revenues from HCS in 1978 were approximately \$2.3 million.
- The Automotive Services Division (ASD), headquartered in Dallas (TX), offers on-line and batch processing services to automobile dealerships. ASD was sold to Computerized Automotive Reporting Service (CARS). CARS purchased ASD for \$840,000 in cash and issued promissory notes in the aggregate principle amount of \$3,485,000. ASD had 1978 revenues of approximately \$8 million, about 75% of which was derived from Chrysler dealerships.
- The Automotive Mini Division (AMD) sold minicomputers with application software for automobile dealerships. AMD had revenues of \$2.8 million in 1978 but was not profitable. Itel closed the operation.
- The Transportation Management Division (TMS), headquartered in Salt Lake City (UT), specializes in providing processing services for the motor freight industry. The sale of TMS is currently being negotiated. TMS's 1978 revenues were \$4.6 million, of which approximately \$1.6 million was attributed to intercompany revenues.
- During the second quarter of 1979 Itel's financial problems became more visible. At this time Itel made the decision to sell one more DSG division.
- AUTEX, a division which provides on-line securities information to the financial community and has other related financial services, was sold to Xerox. AUTEX had revenues of approximately \$8.9 million in 1978.



## COMPANY HIGHLIGHT/ITEL DATA SERVICES GROUP

- As late as August 1979, Itel DSG still intended to retain five of its operating divisions. However, as the losses of the parent corporation began to mount, it became imperative to sell the remaining operations. These were:
    - Utility Data Services Division (UDS), based in Dallas (TX), provides national remote computing services. Primary applications used on its network are scientific and engineering related products. USD is in the process of being purchased by United Telecommunications. Terms of the cash transaction have not been disclosed. USD's 1978 revenue was approximately \$12.5 million.
    - Systemix, a company which Itel acquired in June 1979, provides computerized personnel systems for measuring, reviewing and evaluating human resources. Systemix was purchased by Xerox Learning Systems for an undisclosed amount. Systemix is located in Irvine, CA.
    - *Sold to ADP for \$15 million cash* → The Audatex Division, based in Hayward (CA), holds the exclusive rights in the U.S. and Canada to market the Audatex Estimating System which was developed by Audatex Holding, A-G, a wholly owned subsidiary of Swiss Reinsurance Corporation. Audatex is an on-line computer-based automobile collision repair estimating service which can be used by insurance companies, independent body shops and automobile dealers. Itel sold Audatex to the current managers of the Division and other investors. Audatex, so far, has not been profitable due to the large investment required to develop and maintain a data base of all automobile models, parts, and associated labor costs needed to estimate repairs.
    - *Purchased by Volk Industries* → Delta Resources, Inc. and its four operating subsidiaries (Maintech, Inc., Delta Information Systems Corporation, Eridine Development Corporation and DRI Leasing, Inc.), provide turnkey systems, software development, consulting services, leasing and maintenance services. There is not a buyer for Delta at present, although several companies are interested. Delta's revenues in 1978 were \$7.2 million.
    - The Medical Arts Division offers several products to meet the needs of physicians. These are:
      - Management of the financial aspect of a doctor's practice.
      - Medical claims handling for Medicare/Medicaid patients.
      - Service bureau processing of office related applications for physicians.
- At the present time there is not a buyer for Medical Arts. Its 1978 revenues were approximately \$5.8 million.
- Unless Itel fails to sell the remaining three divisions, DSG will not exist at the end of 1979. INPUT regrets the disestablishment of this major computer services firm. Hopefully the services provided by the divisions acquired will continue and flourish under their new owners.



COMPANY

ITEL

FY

12/31

FISCAL YEAR	<del>DATA</del> <del>SERVICES</del> <del>TOTAL</del>	ANNUAL REVENUE (\$millions)	ANNUAL GROWTH RATE (%)	COMMENTS
1971	7	20	105	ACQUISITIONS 7/75: Computer Facilities Inc. 9/75: Central Data Systems Inc. 10/75: Capital Business Services Inc. 12/76: Computer Dimensions Inc. 12/76: Act Ex, Inc. 12/76: Utility Networks of America 12/76: Tax Accountants Computer Service
1972	10	41	166	
1973	12	109	32	
1974	17	144	42	4/77: Multiple Access, Inc. (Wyo.) 6/77: Facts Nationwide Teletype Service, Inc. 8/77: Medical Arts Office Service, Inc. 11/77: United Medical Data Systems 12/77: Compunet, Inc. 4/78: Delta Resources, Inc. 4/78: Health Providers Computer Services, Inc. 5/78: Health Control Corp.
1975	26	204	26	
1976	42	260	54	
1977	84	401		
1978		500	71 %	Previous years Average
			25 %	1977-1978
				Max Rate Projected
				Min Rate Projected
1979		Max Revenue	Min Revenue	Avg. Revenue
1980				
1981				
1982				
1983				



## INPUT CONTACT REPORT

COMPANY: _____	Date _____	REASON FOR CONTACT	RELATING TO
NAME: _____	INPUT STAFF	<input type="checkbox"/> SALES	<input type="checkbox"/> MAS <input type="checkbox"/> SES
TITLE: _____	INIT. _____	<input type="checkbox"/> INTERVIEW	<input type="checkbox"/> CAMP <input type="checkbox"/> USER
ADDRESS: _____	INIT. _____	<input type="checkbox"/> PRESENTATION	<input type="checkbox"/> CUSTOM
_____	<input checked="" type="checkbox"/> PHONE	<input type="checkbox"/> SUPPORT	ID _____
_____	<input type="checkbox"/> VISIT	<input checked="" type="checkbox"/> OTHER	<input type="checkbox"/> OTHER
PHONE (    )       - <input type="checkbox"/> MAIL LIST		_____	ID _____

DISCUSSION:

**BUSINESS DEVELOPMENT POTENTIAL:**

☐ EXTRA PAGE(S) ATTACHED[illegible]

WHITE•DIST

GREEN • MARKETING  
OR PROJECT

YELLOW•CONTACT

PINK●EXEC

GOLDEN ROD • ORIGINATOR



[illegible]





TOTAL REVENUES - 1974 1973 1972 1971					ACQUIRED COMPANY	Place	Date	Rev.
Coupon	1974	1973	1972	1971				
Steel Corp	143.50	108.50	40.50	19.60	See other page for continued acquisitions			
Steel DS	17.30	12.20	10.10	6.70	Statistics Form Mgt Steel Data Services Travelcon Transportation Mgt DCS Cpt & Bcs Inc. Chicago-based Co. Pyramid Indus Deos Bureau of CA Alpha Omega Corp Heath Control Corp	Philadel Salt Lake City NYC Chicago LA Long Beach Oakland Dallas	1969 1969 1971 1973 1971 1972 1974 1974 1974 1978	DP 2.80 on-line GB motor carrier ins real estate payroll country-wide rep automated ledger xloc to 1200 acc retailers health.
CDC TOTAL CDC-DS	1,101.14 157.2	948.2 143.6			See other sheet for acquisitions			
UCC w/ly	72.51 88.81	76.04 79.83	73.21 74.91	70.74 74.01				
Micrographics	33.1	27.7	28.1	18.4	Mgt Hongois Data Sys Programmatic Method Nergy - EGT MATICS System Three Cota Tech. Co. Auto Sys. Co. MARK IV Supt. Co. Western Systems Co. Tried to acq. Autocamp SDA Corp D	Texas NY DC	1977 1975 1974 1974	sft. the bus cptr.
							1973 1973 1973	1.0m - 12/72



# COMPANY HIGHLIGHT

ITEL DATA SERVICES GROUP  
3 Corporate Drive  
White Plains, NY 10604  
(914) 694-8800

*Joe D. Foster* *Secy V. Ritacco*  
~~William Bird~~, President  
Wholly owned subsidiary  
of Itel Corporation  
Total employees: 950  
Total revenues, fiscal  
year end 12/31/76:  
\$41,900,000

## THE COMPANY

- ITEL Data Services Group (DSG) offers packaged batch and on-line data processing services to 11,000 clients in a variety of industries, including manufacturing, wholesale, retail, banking, law, trucking, architecture, accounting, and engineering. It also provides management and other information services.
- DSG revenues increased from \$25.9 million in 1975 to \$41.9 million in 1976, a growth of 62%. Earnings during the same period jumped more than 80% from \$2.2 million to \$4.0 million.
- The Data Services Group is highly acquisition-oriented. Four companies acquired in December 1976 will almost double DSG revenues in 1977. In addition, each acquisition has enabled the company to enter a new market area. The acquisitions and their markets are as follows:

<u>Name of Company</u>	<u>Markets/Products</u>	<u>Estimated 1977 Revs.</u>
Computer Dimensions	On-line inventory control and accounting functions for auto dealers, credit unions, and insurance agents. (Centers in Dallas, Detroit, and L.A.)	\$20M
AutEx Inc.	Block securities trading information services for brokerage and institutional investors.	\$ 8M
Utility Network of America	On-line scientific computation using Univac 1108 systems	\$ 7M
Tax Accountants Computer Services	Computerized tax computation services for accountants.	\$ 2M

acq. 1977: *United Medical Data Sys. Long Beach, CA.*  
*Medical Auto Office Services, Inc.*  
August 1977

## COMPANY HIGHLIGHT/ITEL DATA SERVICES GROUP

- In addition, DSG acquired Multiple Access, Inc. in April 1977. Multiple Access provides remote batch network information services.
- The major challenge facing management is to integrate the acquired companies effectively to obtain the benefits of economies of scale without destroying the entrepreneurial spirit which got the companies started.

### KEY PRODUCTS AND SERVICES

- In 1976, 68% of DSG revenues were derived from the sale of batch processing and 32% from on-line processing.
  - The average annual revenues from an on-line client in 1976 were nearly ten times greater than the average revenues of an off-line client (\$31,000 versus \$3,311).
  - Since 1972, on-line clients have shown a compound growth of 100% in both revenues and numbers. In contrast, off-line clients have grown only 31% in revenues and 43% in numbers during the same period.
- By fiscal year end 1977, DSG expects to have 1,400 employees and 18 data centers. Revenues will be segmented as shown below:

<u>Service</u>	<u>% of Total Revenues</u>
<i>Medical Processing</i> Commercial Data Services (accounts receivable, payroll, general ledger)	42%
Transportation Data Services (motor freight, auto dealers)	22%
Financial Data Services (commercial banking services, savings, block trading)	14%
Business Forms	9%
Scientific Data Services	7%
Insurance Data & Network Data Services	6%
	100%

August 1977

## COMPANY HIGHLIGHT/ITEL DATA SERVICES GROUP

- Its 950 employees in 1976 were distributed as follow:

OPERATIONS	60%
TOTAL MARKETING	22%
Sales	6
Marketing	16
ADMINISTRATION	10%
R&D	<u>8%</u>
	100%

APPLICATIONS DSG concentrates on general business applications. It is one of the largest processors of general ledger and financial statements for accountants and the business community. In addition, it provides inventory control, sales analysis, and bill of materials processing applications.

INDUSTRY MARKETS The company's major revenues are derived from the distribution industry, as shown below:

<i>Medical</i>	
Distribution-wholesale	60%
Manufacturing-discrete	20%
Banking	10%
Transportation	<u>10%</u>
	100%

GEOGRAPHIC MARKETS DSG has offices in White Plains, Dallas, Wellesley, New York City, Salt Lake City, and Pittsburgh. Computer Dimensions, its subsidiary, has data centers in Dallas, Detroit, and Los Angeles.

COMPUTER HARDWARE AND SOFTWARE DSG maintains 18 computer centers throughout the U.S., including a central center in White Plains. This central site has two IBM 370/155 and one IBM 360/65 mainframes. ITEL will shortly replace the IBM 360/65 with an ITEL AS-5 system.

August 1977



COMPANY HIGHLIGHT

*acquired  
Autel*

ITEL DATA SERVICES  
3 Corporate Park Drive  
White Plains, New York 10604  
*(914) 644-8800*

William H. Bird, President  
Private  
Subsidiary of Itel Corporation

Total Computer Services Sales  
as FY ending 12/75: \$25,900,000

---

NUMBER OF EMPLOYEES engaged in computer services: 950

KEY PRODUCTS SERVICES: Itel Data Services offers batch and remote computing services, with batch accounting for 67% of revenues and remote computing for 33%. Most remote computing services are interactive as opposed to remote batch or information retrieval/data base. Applications oriented services are marketed primarily to small and medium-sized businesses.

APPLICATIONS: IDS provides the following types of general business applications, which account for 100% of sales:

Accounts payable	(batch)
General ledger	(batch)
Accounts receivable	(batch and interactive)
Customer billing	(interactive)
Inventory control	(interactive)
Sales Analysis	(interactive)
Bill of material	(interactive)

INDUSTRY MARKETS: Four industry markets constitute the bulk of IDS revenues, as follows:

Retail and Wholesale Distribution	60%
Manufacturing	20%
Banking/finance	10%
Transportation	10%

GEOGRAPHIC MARKETS: IDS revenues are concentrated in the following three regions of the U.S.:

Northeast	60%
Pacific States	20%
Midwest	20%

June/1976

H-31.1

INPUT

## COMPANY HIGHLIGHT/ITEL DATA SERVICES

Sales and branch office locations include the following cities:

Boston, MA	Los Angeles, CA
Chicago, IL	New York, NY
Cleveland, OH	Oakland, CA
Dallas, TX	Philadelphia, PA
Detroit, MI	Pittsburgh, PA
Houston, TX	Salt Lake City, UT
Long Beach, CA	

COMPUTER HARDWARE AND SOFTWARE: Consist mostly of small IBM 360 and 370 Systems:

2	IBM	370/155	OS	Salt Lake City, UT
2	IBM	370/155	DOS	White Plains, NY
1	IBM	360/50	DOS	Cleveland, OH
2	IBM	360/40	DOS	Chicago, IL
1	IBM	360/40	DOS	Cleveland, OH
1	IBM	360/40	DOS	Pittsburgh, PA
1	IBM	360/40	DOS	Oakland, CA
2	IBM	360/40	DOS	Los Angeles, CA
1	IBM	360/30	DOS	Lansing, MI
1	Burroughs	5500		Long Beach, CA

OVERALL ASSESSMENT AND TREND: Itel Corporation, with 1975 revenues of \$204 million, was founded in 1968. It entered the data services business in 1969 with the acquisition of a company in White Plains, New York, which had annual sales of \$2.8 million. One of the dominant characteristics of the Itel Data Services has been its active acquisition policy. At least a dozen additional acquisitions have been made since that time, including the following:

- Travcom, Philadelphia, was purchased in 1971 and the first acquisition of an on-line services company.
- Pyramid Industries, Los Angeles, was acquired in 1972.
- Transportation Management Systems, Inc., Salt Lake City, was acquired in 1973. It provides on-line accounting and information services to the trucking industry, such as the preparation of weight bills and devising of schedules. In 1974 TMS accounted for 11.7% of IDS revenues, or about \$2 million.
- DCS Computer Services, New York City, served the real estate market when it was acquired in 1973.

June/1976



# COMPANY HIGHLIGHT/ITEL DATA SERVICES

- Data Processing Bureau of California, Inc., Long Beach, was acquired in 1974. At the time of acquisition it offered general ledger services primarily, and sales exceed \$1 million annually. Three subsidiaries of Data Processing Bureau are Lacerte's Data Processing Bureau, Inc., (California) Lacerte's Accounts Computer Services, Inc., (Illinois) and Lacerte Accountants Computer Service, Inc., (Texas).
- Alpha Omega Computer Systems, Inc., Oakland, was acquired in 1974. At the time of acquisition it offered accounts payable and receivable, used an IBM 360 system and had annual sales of over \$1 million.
- Computer Facilities, Inc., Stamford, Connecticut, was purchased for about \$5 million in 1975. It provides on-line data processing services to the commercial banking industry.
- Central Data Systems, Cleveland, was purchased for about \$3.5 million in 1975. Annual revenues exceeded \$9.5 million at that time.
- Capital Business Services, Lansing, Michigan, was purchased in 1975 for about \$1.5 million.
- Additional acquisitions include a Baltimore firm in 1975.
- I.P.L. Data Services, Ltd., New York is an additional subsidiary.
- *acquired Utility Network to America.*

This active acquisition policy reflects a strategy to acquire successful services companies in strategic metropolitan areas. In addition, IDS has sought applications with good potential, high volume markets.

Due both to acquisitions and internal growth, IDS revenues have increased steadily, as indicated by the table below:

ITEL DATA SERVICES REVENUES AND EARNINGS 1968-1975 (\$ Millions)		
Year	Revenues	Before Tax Earnings
1968	\$ 2.0	\$0.3
1969	2.8	0.0
1970	4.5	0.0
1971	6.7	(0.6)
1972	10.1	0.4
1973	12.2	0.8
1974	17.3	1.9
1975	25.9	2.2

COMPANY HIGHLIGHT/ITEL DATA SERVICES

The approximate distribution of employees is as follows:

marketing	22%
administration	10%
operations	60%
programming and development	8%

The average revenue per on-line customer is significantly higher than for batch users. In 1974, for example, on-line customers represented 5% of the client base and generated about 25% of the revenues. The total number of clients for 1974 were 4500; in 1975 they numbered 5700.

June/1976

INPUT

H-31.4

# Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

March 1996

## Intuit Inc.

**Chairman:** Scott D. Cook  
**President**  
**& CEO:** William V. Campbell  
2535 Garcia Avenue  
Mountain View, CA 94043  
**Phone:** (415) 944-6000  
**Fax:** (415) 944-6688  
**Internet:** [Http://www.intuit.com](http://www.intuit.com)

<b>Status:</b>	Public
<b>Employees:</b>	2,732 (10/95)
<b>Revenue:</b>	\$395,729,000
<b>Fiscal Year End:</b>	7/31/95

### Key Points

- Intuit Inc. is a provider of PC-based financial software products and is a leader in the emerging market for electronic financial services.
- In February 1996, Intuit launched low-cost tax preparation software on its World Wide Web site, allowing users to fill out and file their tax returns on-line.

- In December 1995, Intuit announced it would be offering on-line banking via the Internet in the second half of 1996. Intuit has formed a strategic alliance with America Online (AOL) to provide electronic banking to AOL's four million subscribers.
- During 1995, Intuit made three strategic acquisitions, including GALT Technologies Inc., a provider of mutual fund information on the Internet; Personal News, Inc. (PNI), a developer of technology to provide on-line investment research data; and Mysterious Pursuit Pty Ltd. (MP), a privately held Australian company that develops tax software.

- Since July 1995, the company has announced strategic partnerships with 22 leading financial institutions to provide customers with on-line banking and bill payment services.

### Company Description

Intuit, founded in 1983, develops, markets and supports personal finance, small business accounting, tax preparation and other consumer software products. It also provides related supplies and electronic services for individuals, professionals and small businesses.

- Intuit pioneered computerized personal finance management with the introduction of Quicken® in 1984.
- Intuit's primary software products are Quicken, for personal financial management; QuickBooks® financial management tools designed for small business owners; and the TurboTax®, MacInTax® and TurboTax ProSeries™ tax return preparation applications designed for individuals and professional tax preparers.

During the fourth quarter of fiscal 1995, Intuit sold 1.1 million shares of common stock, raising \$80.2 million. The funds will be used for capital expenditures and working capital.

In May 1995, Intuit announced the termination of its merger agreement with Microsoft. Under the proposed merger, Intuit would have become a wholly owned subsidiary of Microsoft.

- The proposed merger had been opposed in a lawsuit brought by the U.S. Department of Justice, and the two companies were unable to agree to pursue the litigation.
- As a result of the termination, Intuit received a \$46.3 million termination fee

(\$41.3 million net of related expenses) from Microsoft. The after-tax benefit to Intuit was approximately \$25.6 million.

Effective August 1, 1994, Intuit changed its fiscal year end from September 30 to July 31 in order to better align its financial reporting cycle with the business cycles of its tax and finance software products.

### Organization and Structure

Intuit now occupies its new corporate headquarters in Mountain View (CA). The company also has U.S. offices in Palo Alto, San Diego and San Francisco (CA), and telephone support centers in Tucson (AZ), Rio Rancho (NM), Hiawatha (IA) and Fredericksburg (VA).

Intuit also operates the following domestic wholly owned subsidiaries:

- Intuit Services Corporation (ISC), previously known as National Payment Clearinghouse, Inc., is headquartered in Downers Grove (IL). It delivers electronic banking, bill payment and stock quote retrieval services to consumers via modems and personal computers.
- Parsons Technology, Inc., located in Hiawatha (IA), develops consumer software in legal, tax, medical, and advice-oriented categories. This subsidiary markets consumer software such as Personal Tax Edge™, Quicken Family Lawyer™ and Medical Drug Reference® through its substantial direct mail distribution channels.
- Quicken Investment Services, Inc., located in Mountain View (CA), markets personal finance software products.

Intuit also operates the Automated Financial Services division, which offers a number of on-line services, including electronic bill payment, payroll tax update services and the Quicken Visa card with IntelliCharge.

Intuit has international offices/subsidiaries in the U.K., Canada, Germany, France, Australia and the Netherlands.

### Company Strategy

Intuit's vision is focused on creating automated solutions to help consumers and small businesses "simplify and enrich" their financial lives.

Furthering its vision of helping people make better, smarter financial decisions, Intuit is positioning itself for a leadership role in emerging electronic commerce markets, on-line banking, and the Internet.

Intuit's product development strategy focuses on products that provide added value to its new and existing customers and that provide Intuit with opportunities for ongoing sales to repeat customers.

Intuit is also concentrating on international expansion. Until 1993, the company had no sales outside North America. Now the company is actively pursuing international markets, and is currently in eleven countries outside the U.S. and Canada. During 1995, it introduced products into seven of the eleven countries in which it now markets.

### Financials

Intuit's fiscal 1995 revenue reach \$395.7 million, a 77% increase over revenue of \$223.4 for the twelve-month period ending July 31, 1994. Net losses were \$45.4 million in fiscal

1995, compared to a loss of \$173.2 million during the same period the prior year.

Intuit management attributed fiscal 1995 revenue increases to the following:

- Increased product volumes and new product introductions, domestically and in international markets, especially Germany
- The inclusion of approximately \$62.0 million in net revenue from Parsons' operations subsequent to September 27, 1994
- The inclusion of \$104.5 million in revenue from ChipSoft, which was acquired in December 1993
- Excluding the effect of these acquisitions, revenue rose approximately 47% for fiscal 1995.

Net losses for fiscal 1995 and 1994 include acquisition-related charges, net of taxes, of \$97.7 million and \$198.7 million, respectively.

- Fiscal 1995 results also include the Microsoft merger termination fee of \$25.6 million net of related expenses and income taxes.
- Excluding acquisition-related expenses and the Microsoft termination fee, net income would have been \$26.8 million, compared to net income of \$25.4 million for the twelve-month period ending July 31, 1994.

In the three-year financial summary that appears on the following page, figures prior to fiscal 1995 have been restated for comparative purposes to reflect the change of the company's fiscal year end from August 31 to July 31.

**Intuit Inc.**  
**Three-Year Financial Summary**  
 (\$ Millions, except per-share data)

Item	Fiscal Year		
	7/95	7/94(a)	7/93(a)
Revenue	\$395.7	\$223.4	\$107.0
• Percent change from previous year	77%	108%	N/A
Income (loss) before taxes	\$(21.1)	\$(169.4)	\$10.0
• Percent change from previous year	(b) 88%	N/A	N/A
Net income (loss)	\$(45.4)	\$(173.2)	\$6.2
• Percent change from previous year	(c) 74%	(c) N/A	N/A
Earnings (loss) per share	\$(1.11)	N/A	N/A
• Percent change from previous year	N/A	N/A	N/A

(a) Unaudited; for comparative purposes only.

(b) Includes the termination fee from Microsoft of \$41.3 million (\$25.6 million net of related expenses and income taxes).

(c) Includes acquisition-related charges, net of taxes, of \$97.7 million and \$198.7 million in fiscal 1995 and fiscal 1994, respectively.

Research and development expenditures were approximately \$53.4 million (13.5% of revenue) in fiscal 1995 compared to \$24.6 million (11% of revenue) during the prior 12-month period.

*Revenue Analysis by Product/Service*

Approximately 87% of Intuit's fiscal 1995 revenue was derived from software products and 13% from supplies revenue.

Software revenue increased approximately 90%, to \$342.9 million during fiscal 1995, up from \$180.2 million during the same period the previous year. Increases were due to greater volumes, new product introductions, and acquisitions.

- Increased unit sales resulted from the release of new and upgraded finance

products, including Deluxe and CDROM versions.

- Increases in average selling prices from Deluxe products were partially offset by lower average prices on products sold through the OEM channel, and a smaller proportion of new product sales, as the core product lines mature.

Supplies revenue was \$52.8 million in fiscal 1995, a 22% increase over revenue of \$43.2 million in the prior year. This increase was attributed to increased sales of small business check, envelope, and invoice products.

In the three-year source of revenue summary that follows, figures for the twelve-month periods ending July 31, 1994 and July 31, 1993 are unaudited and for comparative purposes only.

**Intuit Inc.**  
**Three-Year Source of Revenue Summary**  
 (\$ Millions)

Product/Service	Fiscal Year					
	7/95		7/94(a)		7/93(a)	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Software	\$342.9	86.6%	\$180.2	80.6%	\$71.7	67.0%
Supplies	52.8	13.4%	43.2	19.4%	35.3	33.0%
Total	\$395.7	100%	\$223.4	100%	\$107.0	100%

(a) Unaudited; for comparative purposes only.

#### *Interim Results*

Revenue for the six months ending January 31, 1996 reached \$325.4 million, a 34% increase over \$242.0 million for the same period a year ago. Net income was \$1.6 million, compared to a net loss of \$39.1 million for the same period the previous year.

- Net losses for the six-month period a year ago include acquisition-related charges of \$44 million for purchased R&D.
- The current year reflects substantial investments in research and development, marketing, customer service, and infrastructure, compared to the period a year ago, to support the company's initiatives in electronic financial services and Internet applications.
- QuickBooks has experienced substantial growth and its highest market shares to date.

#### **Market Financials**

Intuit's products are sold to end users (households and small businesses) primarily through distributors, retailers and direct sales channels.

One distributor, Ingram, accounted for 8% and 15% of net revenue in fiscal 1995 and 1994.

respectively. A second distributor, Merisel, accounted for 13% and 15% of net revenue in the same periods.

#### **Geographic Markets**

To date, the majority of Intuit's revenue has been derived from the U.S. and Canada. International revenue from sales outside of North America was less than 5% of Intuit's net revenue during fiscal 1995 and the prior twelve-month period.

Intuit is actively pursuing international markets, and is now in eleven countries outside the U.S. and Canada. In 1995, the company introduced products into seven of the eleven countries in which it now markets.

Intuit has developed versions of Quicken for sale in Australia, Canada, France and Germany. It has also developed versions of both Quicken and QuickBooks for the U.K.

#### **Acquisitions**

In November 1995, Intuit announced its agreement to acquire GALT Technologies, Inc. (Pittsburgh). The acquisition is expected to be finalized by September 1996.

- GALT is a provider of mutual fund information on the Internet, through its NETworth™ service.



- The acquisition of NETworth will increase Intuit's ability to provide mutual fund information to its customers via links to Intuit's new Internet Web site, the Quicken Financial Network.

In June 1995, Intuit acquired certain assets of Mysterious Pursuit Pty Ltd. (MP) for \$1.1 million. MP is an Australian company that had been Intuit's outside developer of tax software for its Australian, German and U.K. markets.

In June 1995, Intuit acquired Personal News, Inc. (PNI) for 216,982 shares of Intuit's common stock, valued at \$10.4 million.

- PNI is a developer of technology providing on-line investment research data, and is providing Investor Insight™ to Intuit's new Windows Deluxe version of Quicken for '96.
- PNI's operations have been merged into those of Intuit.

In September 1994, Intuit purchased Parsons Technology, Inc., a developer of legal, tax, medical and advice-oriented consumer software products, for approximately \$67.3 million. Intuit paid \$28.8 million in cash and issued 1.8 million shares of its common stock to Parsons' stockholders.

- Parsons become a wholly owned subsidiary of Intuit pursuant to the acquisition.
- Through the acquisition, Intuit acquired Personal Tax Edge, a consumer tax preparation product that is marketed primarily through direct sales efforts.

In July 1994, Intuit acquired National Payment Clearinghouse, Inc. (NPC) for \$7.6 million.

- Of the purchase price, \$1.4 million was allocated to in-process research and development.
- NPC now operates as a wholly owned subsidiary named Intuit Services Corporation (ISC), providing electronic banking, bill payment and stock quote retrieval services to customers via modems and personal computers.

In April 1994, Intuit purchased Best Programs Inc.'s professional tax preparation business for \$6.5 million. Of the purchase price, \$5.8 million was allocated to intangible assets. The operations were subsequently merged into those of Intuit.

In 1993, Intuit purchased ChipSoft, Inc., a publicly held developer and marketer of PC tax preparation software for \$306.4 million in common stock, stock options and acquisition costs. The operations of ChipSoft were merged into Intuit, and in fiscal 1995, this unit contributed approximately \$69.8 million to Intuit's revenue.

### Employees

As of October 13, 1995, Intuit had 2,732 full-time employees—92 employees at international subsidiaries and 2,640 employed domestically, segmented as follows:

Marketing and sales .....	225
Customer support .....	1,306
Product development .....	673
Production .....	118
Finance, business development, corporate services, human resources, and management information systems .....	<u>318</u>
	2,640



## Key Products and Services

Intuit's primary product offerings are personal finance, small business accounting, tax preparation and other consumer software products, automated financial services offerings, and complementary supplies.

### *Personal Finance Products*

Intuit develops personal finance software products for the Windows, Macintosh and DOS operating environments.

Quicken, introduced in October 1984, represents approximately 20% of Intuit's revenue. It allows users to organize, understand and manage personal finances. It is designed to look and work like a checkbook, and does not require the user to be familiar with double-entry accounting concepts.

- Quicken Deluxe 5 for Windows CDROM was released during the first quarter of fiscal 1996, along with enhanced versions for Windows and Macintosh.
- New service offerings available through Quicken include on-line banking, bill paying, and an investor research tool.
- New features include a tutorial of finance fundamentals, personalized financial advice, and a tool that automatically tailors the Quicken user interface.

Quicken Financial Planner facilitates retirement planning.

Your Mutual Fund Selector assists in the evaluation of mutual fund investments.

Quicken Parents' Guide to Money advises parents on financial planning.

Quicken ExpensAble™ for Windows, introduced during the first quarter of fiscal

1996, is an expense-reporting software product for business travelers.

Pocket Quicken™ is designed to enable mobile users to track expenditures and keep accounts of daily cash flows.

Pocket Quicken Connect™ for Macintosh and Windows, released during the first quarter of 1996, provides a link between Quicken and Quicken ExpensAble on the desktop and Pocket Quicken for the Newton, Magic Cap or HP Palmtop PC mobile platforms.

### *Small Business Accounting Products*

QuickBooks, contains Quicken's most popular features, including the look and functionality of a checkbook.

QuickBooks Pro™ addresses the needs of small U.S. contracting, consulting, legal, accounting, and subcontracting businesses that are project-, job- or time-based.

QuickPay™ is a payroll add-on product for Quicken that calculates and tracks salary and payroll deductions. It is incorporated into the latest versions of QuickBooks for Windows, DOS and Macintosh platforms.

### *Tax Preparation Products*

Intuit offers a line of more than 400 tax preparation software products sold under the brand names TurboTax, MacInTax, TurboTax for Business and TurboTax ProSeries.

TurboTax and MacInTax, first introduced in 1984, are available for the DOS, Windows, and Macintosh operating environments.

Of its consumer products, Intuit currently provides 45 state tax preparation products for both Macintosh- and Windows-based computers, and 10 state tax preparation products for DOS-based computers.

- TurboTax and MacInTax consumer tax preparation software products include different data entry methods for different levels of experience.
- TurboTax and MacInTax offer tax help and print completed IRS-approved forms.
- Personal Tax Edge is designed for the less complex returns. Personal Tax Edge and associated products are available for DOS and Windows.
- Intuit also releases HeadStart preliminary editions of many of its federal 1040 and state tax return programs to enable customers to plan and organize their records prior to the release of the final editions.

TurboTax for Business is designed to enable small businesses to prepare tax returns without an outside tax preparation professional. Intuit develops, markets and supports TurboTax for Business programs for corporate and partnership returns and, in fiscal 1996, introduced programs for sole proprietorships.

Professional tax preparation products—TurboTax ProSeries for DOS, Windows, and Macintosh, are designed for tax preparers and accountants of individuals and small businesses.

### *Other Software Products*

Intuit also offers Announcements, Golf Digest's Scorecard®, and the Quicken Financial Suite™, which includes the Quicken Deluxe, Quicken Financial Planner, and Quicken Family Lawyer software products.

Quicken Family Lawyer products are for preparing legal forms and documents such as wills, powers of attorney and promissory notes.

Medical Drug Reference® enables users to access pharmaceutical product information.

QuickVerse® is a computerized concordance that enables users to locate biblical references.

### *Automated Financial Services*

Intuit complements its personal financial software with the following services:

- In September 1995, Intuit announced new Quicken 5 for Windows and Quicken 6 for Macintosh, also known as Quicken for '96. This service integrates a range of new electronic services, including Investor Insight, on-line banking and on-line bill payment.
- On-line banking, a new feature of Quicken 5 for Windows, allows users to download account activity and automatically categorizes it into Quicken.
- IntelliCharge® Credit Card Service provides Quicken credit card users with electronically transmitted statements from which data can be transferred to and categorized by Quicken. There is no annual fee for the IntelliCharge card or for the data download via modem. An annual fee is charged for statement delivery via diskette.
- Online Bill Payment enables users to pay bills via modem, through financial institutions and directly from Intuit. Charges are set by the financial institutions.
- Investor Insight is a new feature of Quicken Deluxe 5 for Windows CD ROM that gives Quicken users access to investment research information. Users are charged a monthly fee for Investor Insight.
- Payroll Tax Table Update Service is an add-on diskette-based data service that provides

QuickBooks and QuickPay users with updated payroll tax table files.

In February 1996, Intuit launched its low-cost QuickTax™ 1040A/EZ software on its World Wide Web site, allowing users to fill out and file their tax returns on line.

- The service is targeted to taxpayers with less than \$50,000 in annual income and is available for \$9.95.
- Software is included to file 1040A "short form" and 1040EZ returns, among others.

The Quicken Financial Network (QFN) is an on-line community for Quicken, TurboTax, QuickBooks, ProSeries and other Intuit customers. Each Intuit product has set up its own Web site within QFN to supply product-specific information.

In addition to the above-mentioned services, Intuit is developing additional electronic commerce offerings.

### *Supplies*

Intuit offers a range of supplies, including checks, invoice forms, envelopes, deposit slips and address stamps, to supplement its software products.

Most supplies are sold directly to the users, since the majority require personalized printing.

### *Customer Service and Technical Support*

Intuit provides technical support and customer service by telephone, mail, facsimile and modem.

Telephone support centers are located in Tucson (AZ), Rio Rancho (NM), Hiawatha (IA) and Fredericksburg (VA).

## **Clients**

Intuit's clients consist of individual PC users, professionals and project- and client-based small businesses.

## **Marketing and Sales**

Intuit's products are sold through distributors and retailers, by direct sales to new and renewal customers, and to OEMs.

All of the company's professional tax and supplies products, and approximately 50% of its personal tax software products, are sold directly by Intuit to end users. Intuit uses direct-response advertising in computer magazines, selected general-interest magazines and newspapers and targeted direct-mail solicitations.

- All Parsons sales are made through direct-mail catalogs.
- Intuit believes that the direct sales channel is an efficient vehicle for developing repeat customers for new products and upgrades.

In North America, Intuit also sells to retailers such as Egghead, Sam's, Price Costco and Best Buy. These sales are made by Intuit directly and through distributors, including Ingram and Merisel.

- Sales to Ingram accounted for 12% of the company's revenue in fiscal 1995.
- Sales to Merisel accounted for 17% of revenue during fiscal 1995.

From time to time, Intuit has bundled products with other hardware and software manufacturers in OEM arrangements. These bundles have been mainly for special editions of Quicken for Windows that have more limited feature sets than the standard version.

## **Alliances**

In November 1995, Intuit announced a strategic alliance with America Online (AOL) to jointly provide electronic banking to AOL members during 1996. In addition, Intuit is revamping its on-line area on AOL and will include links to its Internet Web site (the Quicken Financial Network). AOL will make Intuit software products available for sale on AOL and both companies will sponsor joint promotions.

Since October 1995, Intuit has delivered electronic banking to customers of 22 participating financial institutions via Quicken. Intuit's financial partners include: American Express, Bank of Boston, Centura Bank, Chemical Bank, Chase Manhattan Bank, Compass Bank, CoreStates Bank, Crestar Bank, First National Bank of Chicago, First Interstate Bank, Home Savings of America, M&T Bank, Marquette Banks, Michigan National Bank, Sanwa Bank of California, SunTrust Bank, Smith Barney, Texas Commerce Bank, Union Bank, U.S. Bank, and Wells Fargo Bank.

In late 1995, Intuit entered into a strategic partnership with Franklin Electronics, Inc. to provide the low-cost Pocket Quicken on BOOKMAN to consumers.

## **Competition**

Intuit's competitors, by market, include:

- Personal finance software products and services and personal tax software products—Microsoft, MECA Software, Inc., Computer Associates International, Inc., Novell, H&R Block, Peachtree Computing, New England Business systems, Visa International, Inc., Citibank, Fidelity Investments, BestWare, Sage, stock update services from ValueLine and Charles Schwab, and various on-line services such as Prodigy
- Professional tax preparation—Lacerte Software Corporation, UTS, SCS/Compute, Drake, Taasc, Creative Solutions, Pencil Pushers, Inc., and Commerce Clearing House/Computax
- Supplies products—business forms companies such as Deluxe Business Systems, NEBS, and Moore Business Forms
- Automated financial services—larger financial service providers, banks and investment firms, including American Express, Visa, Citibank, Fidelity Investments, and H&R Block, and stock update services from ValueLine and Charles Schwab

## COMPANY PROFILE

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### **ISI SYSTEMS, INC.**

161 Forbes Road  
Braintree, MA 02184  
(617) 848-4620

Charles C. Johnston, Chairman and  
President

Public Corporation, AMEX

Total Employees: 439

Total Revenue, Fiscal Year End

6/30/89: \$44,618,000

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### **The Company**

ISI Systems, Inc. provides insurance processing services, application software products, and custom software development services for property/casualty and life/health insurance companies and agents nationally.

- ISI Systems was founded in 1969 to provide processing services to the property-casualty insurance industry, and began producing application software products for the same market in 1980.
- Between 1976 and 1986, the company was owned by Grumman Corporation and operated as part of Grumman Data Systems. As of July 1, 1986, it returned to independence through a leveraged buyout for an aggregate purchase price of \$20 million.
- In January 1987, ISI Systems completed an initial public offering of approximately 1.4 million shares of common stock. Of the net proceeds, \$14.2 million was used to repay debt associated with its acquisition from Grumman Corporation.
- In December 1988, ISI Systems acquired Automated Agency Systems, Inc. (AAS) of Des Plaines (IL).
  - AAS provides microcomputer software products to insurance agents nationally.
  - AAS had approximately ten employees at the time of the acquisition and 1988 revenue of approximately \$150,000.
  - ISI Systems plans to integrate AAS' product functions with its own existing rating and policy issuance application software.

- In October 1989, ISI Systems announced that its had signed a merger agreement with Memotec Data Inc. of Montreal (Canada). The expiration date of the agreement is November 21, 1989.
- The merger calls for Memotec to make a cash tender offer of \$20 per share for all of ISI Systems' outstanding shares of common stock. The offer is contingent, in part, on the tender of a minimum of 15% of ISI Systems' outstanding shares.
- Memotec conducts worldwide activities in telecommunications, data communications, and systems integration. Its wholly-owned subsidiary, Real Time Corporation, provides products and services similar to those of ISI Systems.

Fiscal 1989 revenue reached \$44.6 million, a 19% increase over fiscal 1988 revenue of \$37.6 million. Net income rose 24%, from \$5.7 million in fiscal 1988 to over \$7 million in fiscal 1989. A five-year financial summary follows:

**ISI SYSTEMS, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)**

ITEM	FISCAL YEAR				
	6/89	6/88	6/87	6/86	6/85
Revenue	\$44,618	\$37,577	\$31,672	\$24,820	\$22,104
• Percent increase from previous year	19%	19%	(a)	12%	11%
Income before taxes	\$11,477	\$9,478	\$6,966	\$6,210	\$4,804
• Percent increase (decrease) from previous year	21%	36%	- (a)	29%	(3%)
Net income	\$7,049	\$5,681	\$3,552	\$3,304	\$2,574
• Percent increase from previous year	24%	60%	(a)	28%	3%
Earnings per share	\$1.05	\$0.85	\$0.60	--	--
• Percent increase from previous year	24%	42%	--	--	--

(a) Results are not directly comparable to prior years (before the closing of the Grumman transaction) due to increased interest expense due to a higher level of debt (which was subsequently liquidated using proceeds from the public offering) and significant non-cash expenses related to amortization of acquired intangible assets (primarily software).

ISI Systems management attributed revenue growth during fiscal 1989 to the following:

- Insurance processing revenue increased nearly 15% primarily as a result of additional policies placed into assigned risk pools in several states. Also included in fiscal 1989 processing revenue is \$0.9 million in non-recurring revenue from Massachusetts Automobile remand processing, which consisted of fees earned from processing retroactive premium increase billings.
- Revenue from packaged software products rose 16% during fiscal 1989. The increase was attributed to a 108% increase in Ratabase<sup>®</sup> system revenues, resulting from the addition of 11 major Ratabase system contracts.
- Professional services revenue rose 77% during fiscal 1989. These services include custom development of microcomputer workstation software provided by ISI Systems' Micro Applications Development Enterprises (MADE) unit and the customization/modification of ISI Systems' packaged products and services.

As of June 30, 1989, ISI Systems had 439 employees, segmented as follows:

Marketing/sales and customer service/support	115
Systems design and development	234
Executive/administrative and operations support	<u>90</u>
	439

Major competitors include Policy Management Systems and Electronic Data Systems (EDS).

### Key Products and Services

Approximately 74% of ISI Systems' fiscal 1989 revenue was derived from processing services, 17% from packaged application software licenses, and 9% from custom software development professional services.

ISI Systems currently supports more than 80 property/casualty and life/health insurance companies and more than 15,000 insurance agencies nationwide.

A three-year summary of source of revenue by product/service follows:



**ISI SYSTEMS, INC.**  
**THREE-YEAR SOURCE OF REVENUE SUMMARY**  
 (\$ millions)

ITEM	FISCAL YEAR					
	6/89		6/88		6/87	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Processing services						
Massachusetts	\$19.1	42.8%	\$17.2	45.7%	\$15.7	49.4%
Assigned risk	11.8	26.4%	9.7	25.8%	6.9	21.8%
Other (a)	2.0	4.5%	1.8	4.8%	1.3	4.2%
	\$32.9	73.7%	\$28.7	76.3%	\$23.9	75.4%
Software products						
Insurance Writer	\$5.5	12.4%	\$5.6	14.9%	\$4.2	13.4%
Database	2.3	5.1%	1.1	2.9%	1.2	3.7%
	\$7.8	17.5%	\$6.7	17.8%	\$5.4	17.1%
Professional services						
MADE	\$2.1	4.7%	\$1.3	3.5%	--	--
Other (b)	1.8	4.1%	0.9	2.4%	2.4	7.5%
	\$3.9	8.8%	\$2.2	5.9%	\$2.4	7.5%
<b>TOTAL</b>	<b>\$44.6</b>	<b>100.0%</b>	<b>\$37.6</b>	<b>100.0%</b>	<b>\$31.7</b>	<b>100.0%</b>

(a) Includes microfiche sales, customized insurance forms, network charges, loss coding, and customers' special processing requests.

(b) Includes custom modifications of ISI Systems' software products to meet individual client requirements.

*Processing Services:*

ISI Systems' insurance processing services include comprehensive policy processing for commercial and personal automobile insurance in Massachusetts and the assigned risk market in 17 other states. During fiscal 1989, these services encompassed more than two million policies worth over \$2 billion in annual premiums.

The range of services provided by ISI Systems includes on-line data entry and inquiry, premium calculation, vehicle pre-inspections, verification of Vehicle Identification Numbers, ordering of department of motor vehicle reports, automated underwriting, policy issuance, forms design and production, insured and agency billing, statistical reporting to insurance



companies and state agencies, maintenance of rates and rating methodologies, business consulting, and the monitoring, interpretation, and implementation of regulatory requirements.

ISI Systems' processing services currently include the following products:

- ISI Systems' Massachusetts Automobile System (MAS<sup>TM</sup>) currently processes more than 50% of all private passenger, commercial, and fleet vehicles insured in Massachusetts. Automobile insurance rates in Massachusetts are regulated by the state and are subject to constant change. ISI Systems works with the state's regulatory and legislative agencies in order keep the MAS product current on rate and regulatory changes.
- Analyzer<sup>TM</sup> addresses Massachusetts' unique residual market mechanism for insuring high risk policies, as well as complex premium and surcharge rules that make it difficult for underwriters to evaluate policies in terms of risk exposure. Analyzer is an expert underwriting system that automatically examines underwriting factors for a policy and evaluates each risk for rate adequacy. The product can electronically transfer policies or recommend their movement into and out of the Massachusetts residual market mechanism.
- The Assigned Risk Teleprocessing System (ARTS<sup>TM</sup>) provides automated policy processing of private passenger assigned risk policies in 11 of the 40 states in which insurance companies write this type of business.
- The ISI Commercial Automobile Processing System (ICAPS<sup>TM</sup>) maintains rates and rating methodologies for the large number of commercial vehicle assigned risk coverages and provides services similar to ARTS in 12 of the 38 states in which insurance companies write this type of business.
- The Administrative Billing System supports revolving credit; direct, installment, and scheduled statement billing; and commission accounting for insurance brokers. It is available as a Massachusetts automobile processing function, and as a private passenger and commercial automobile assigned risk processing function.
- The Data Inquiry System is a service to help insurers minimize processing costs by combining an on-line inquiry system with completed forms stored on microfiche. MAS, ARTS, and ICAPS system users can use on-line data inquiry to review and

edit underwriting, billing, and claims information via terminals located in branch offices.

- MAS, ARTS, and ICAPS contracts generally have initial terms ranging from one to three years. Pricing for MAS private passenger and ARTS contracts are based on the insurance company's number of policies on file. For ICAPS and MAS commercial automobile contracts the price is based on a percentage of the total premiums on file. Revenues generated annually per client range from about \$5,000 to more than \$3 million.

#### *Application Software Products:*

ISI Systems' application software products include the following:

- The Insurance Writer<sup>R</sup> performs rate/quote and policy issuance functions for seven commercial lines of business in all 50 states. Rate changes and updates are provided by ISI Systems on compact disk-read only memory (CD-ROM), as well as floppy diskettes.
  - Recent enhancements include local area network support, data communication to/from other systems, insurance forms generation, and renewal and endorsement processing.
  - The Insurance Writer is available for IBM and compatible microcomputers. ISI Systems is currently migrating the product to Microsoft's OS/2E operating system.
  - The Insurance Writer has an installed base of over 5,500 insurance company and agency users. Fees vary based on the number of states, lines of business, and sites requested.
  - ISI Systems also licenses a customized version of The Insurance Writer, integrated with ISI Systems' Ratabase product, that supports insurance companies' personal lines of business. Insurers have the option of developing and maintaining rate structures for this system themselves.
- Microcomputer software products acquired with Automated Agency Systems, Inc. (AAS) include the following:
  - Apps Master<sup>TM</sup> uses laser printing technology to produce commercial lines policy applications and forms according to exact industry standards. During fiscal 1990, ISI Systems plans to fully integrate The Insurance Writer's rating

function with Apps Master's forms' processing capability. A version is also available for personal lines forms production.

- Claims Master™ monitors loss notices, helps agents analyze loss ratios by company, identifies risk management trouble spots, and reduces claim report production time.
- Ratabase® is a software tool for insurance analysts and programmers to standardize development and maintenance of insurance rates, rules, and formulas for any line of insurance business--both property/casualty and life/health--regardless of the mainframe or microcomputer-based application that will ultimately use them.
- The product is available in batch and on-line mainframe versions, including VSAM, IMS/DC, CICS, and DOS/VSE environments. A microcomputer DOS version is also available, and an OS/2 version is being developed.
- Ratabase has been licensed to 21 users. ISI Systems also uses Ratabase to develop and maintain its own proprietary and customized software.

#### *Professional Services:*

During fiscal 1988, ISI Systems established Micro Applications Development Enterprises (MADE) to accommodate the demand from property/casualty and life/health insurers for custom development of application software for personal computer workstations.

- Custom applications developed by MADE include personal lines systems, account-based rate/quote systems, agency office management systems using microcomputers and AS/400 systems, umbrella policy and business owners policy processing systems, and management workstations for agency sales/marketing personnel.

ISI Systems is working with a leading insurer to develop a local area network-based Electronic Commercial Lines Insurance Processing System (ECLIPS) for branch offices. ISI Systems is using Ratabase to develop a series of workstation programs for ECLIPS to automate rating, underwriting, auditing, and supervisory operations.

ISI Systems also provides customization of its software products and processing applications to fulfill certain client requirements.

**Industry Markets**

Virtually all of ISI Systems' fiscal 1989 revenue was derived from the property/casualty insurance industry. A small percentage was derived from life/health insurance firms.

ISI Systems' clients include nine of the top 10 and 17 of the top 20 property/casualty insurance companies.

General Accident Insurance Company (GAIC) accounted for 8.9%, 10.6%, and 11.5% of ISI Systems' fiscal 1989, 1988, and 1987 revenues, respectively. During the third quarter of fiscal 1988, GAIC announced that it would withdraw from business in Massachusetts and that the withdrawal would be completed by December 31, 1989. ISI Systems' management expects this decision will not have a material impact on the company's business because the policies terminated by GAIC have been or will be absorbed by other carriers that use ISI Systems' MAS services.

Fireman's Fund Insurance Company, a former ISI Systems' MAS client, also ceased doing business in Massachusetts during fiscal 1989. A significant number of policies terminated by Fireman's Fund in Massachusetts were absorbed by other carriers that use ISI Systems' MAS services.

**Geographic Markets**

One hundred percent of ISI Systems' fiscal 1989 revenue was derived from the U.S.

Sales offices are located in Braintree and Bedford (MA), Des Plaines (IL), Hartford (CT), Philadelphia (PA), San Francisco (CA), and Tampa (FL).

Research and development facilities are located in Andover (MA), Des Plaines (IL), Hooksett (NH), Melville (NY), and Minnetonka (MN).

**Computer Hardware**

In support of its processing services, effective July 1989, ISI Systems leased an IBM mainframe and related equipment residing at a facility in Andover (MA) that is managed by CompuSource.

## COMPANY BRIEF

Primary Industry-Specific Market: Manufacturing

**ITP boston, inc.**  
30 Spinelli Place  
Cambridge, MA 02138  
(617) 499-4200

CEO: Sergio Brosio, President  
Private Company  
Founded: 1980

Employees: 200+  
Revenue (FYE 12/31/85): \$17 million\*

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**The Company:** ITP provides systems integration services for factory automation CIM (Computer Integrated Manufacturing) projects. Its services include analysis of manufacturing operations and the design of new systems.

**Sources of Revenue:**

- Professional Services (100%)

**Key Services:**

- Professional Services
  - Systems integration for factory automation

**Target Industries:**

- Manufacturing (100%)

**Geographic Markets:**

- U.S. (90%)\*
- Non-U.S. (10%)\*
- Sales Offices: Baltimore (MD) and Troy (MI). ITP also has a sales affiliate in Europe.

**Significant Events:**

- In May 1986 ITP boston acquired Intermetrics' factory monitoring business, including its FOCUS and StarMate product lines

+Company estimate  
\*INPUT estimate

October 1986



# Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

January 1996

## Jack Henry & Associates, Inc.

**Chairman & CEO:** Michael E. Henry  
**President:** Michael R. Wallace  
 663 Highway 60  
 P.O. Box 807  
 Monett, MO 65708  
**Phone:** (417) 235-6652  
**Fax:** (417) 235-8406

Status:	Public
Employees:	295 (8/95)
Revenue:	\$46,124,000
Fiscal Year End:	6/30/95

### Key Points

- Jack Henry & Associates (JHA) provides integrated systems and ATM networking products for commercial banks and other financial institutions. The company claims to be the largest reseller of IBM hardware to the financial institution market, with an installed base of 1,240 customers.
- In mid-1995, JHA significantly expanded its banking software and services business with the acquisition of Broadway & Seymour's community banking business (Liberty

system) and the SECTOR banking software business unit of Nationar.

- The company has entered the ATM servicing market with two acquisitions—CommLink in July 1994 and Central Interchange in September 1995.
- In January 1995, JHA announced a technical services and marketing alliance with IBM ISSC whereby ISSC will use JHA's Silverlake Software application to provide banks with outsourcing and systems integration services.
- In February 1995, JHA restructured its BankVision international banking software subsidiary due to poor financial performance.

## Company Description

JHA, founded in 1976, provides integrated (turnkey) systems, ATM networking products and associated support services to banks and other financial institutions. The company markets and supports its systems throughout the U.S. and overseas and has more than 1,240 customers worldwide.

Its proprietary applications software, which operates on IBM midrange computers, is offered under two systems: CIF20/20™, typically for banks with less than \$200 million in assets, and the Silverlake System® for banks with assets of \$100 million to \$10 billion.

JHA also has a license agreement with a data service center headquartered in Franklin (TN), whereby processing services using JHA software products are marketed to banks in Tennessee, southern Kentucky and northern Alabama.

## Organization and Structure

JHA has the following subsidiaries/divisions:

- Jack Henry International, Ltd. (JHI) markets JHA's U.S. products outside the U.S.
- BankVision Software Ltd. markets international banking products outside the U.S. BankVision's operations were relocated from Colorado to JHA headquarters in Monett (MO) during 1995.
- CommLink Corp., headquartered in Houston, markets ATM switching products and services.
- Central Exchange, Inc., headquartered in Kansas City (MO), markets ATM network servicing.
- Liberty Software, Inc., headquartered in Charlotte (NC), markets Liberty software and service bureau processing to community banks and provides forms and supplies to financial institutions. Liberty has additional locations in St. Paul (MN) and Houston (TX).
- JHA also has a division that develops, markets, installs and supports check imaging systems for banks and other financial institutions.
- Silverlake System Sdn Bhd, a 25%-owned venture, markets, installs and supports the Asia/Pacific version of the Silverlake System.

## Company Strategy

JHA built its business by understanding community banking operations and developing applications and related products to facilitate them.

JHA continues to build a loyal customer base by fostering long-term relationships and responding promptly to customers' changing needs. The company's strategy includes:

- Specializing in the IS needs of commercial banks with assets under \$10 billion
- Providing quality products and strong support
- Continually enhancing products, taking into account user group and customer suggestions, and changing bank regulations
- Upgrading many of its CIF customers from IBM System 3X systems to the IBM AS/400
- Developing new products, including a software package for ATMs, a loan-servicing package and a rewrite of the Silverlake general ledger package



JHA also plans to expand its share of the banking market through internal growth, selective acquisitions and strategic alliances.

### Financials

JHA's fiscal 1995 revenue was \$46.1 million, a 20% increase over fiscal 1994 revenue of \$38.4

million. Net income rose 24%, from \$6.3 million in fiscal 1994 to \$7.8 million in fiscal 1995.

A five-year financial summary follows:

### Jack Henry & Associates, Inc. Five-Year Financial Summary (\$ Millions, except per share data)

Item	Fiscal Year				
	6/95	6/94	6/93	6/92	6/91
Revenue	\$46.1	\$38.4	\$32.6	\$23.9	\$20.7
• Percent change from previous year	20%	18%	36%	15%	36%
Income before taxes	\$12.6	\$9.9	\$7.9	\$6.1	\$3.5
• Percent change from previous year	27%	25%	30%	74%	119%
Net income	\$7.8	\$6.3	\$6.3	\$4.0	\$2.2
• Percent change from previous year	24%	--	(a)	(a)	540%
Earnings per share	\$0.66	\$0.52	\$0.54	\$0.36	\$0.20
• Percent change from previous year	27%	(4%)	50%	80%	81%

(a) Includes extraordinary income of \$886,000 in fiscal 1993 associated with the settlement of certain litigation with Unisys. Also includes income of \$101,000 in fiscal 1993 and \$67,000 in fiscal 1992 from discontinued operations associated with FinSer Capital Corporation, JHA's brokerage/financial services and trust businesses.

Revenue growth in fiscal 1995 was attributed to growth in all three of JHA's business areas—software sales, hardware sales and maintenance/support.

### Revenue Analysis by Product / Service

Approximately 33% of JHA's fiscal 1995 revenue was derived from software (including licensing of applications software and

conversion, installation, and customization services), 44% from hardware (equipment and maintenance) and 23% from maintenance/support services (software maintenance).

A three-year summary of source of revenue follows:

**Jack Henry & Associates, Inc.**  
**Three-Year Source of Revenue Summary**  
(\$ Millions)

Product/Service	Fiscal Year					
	6/95		6/94		6/93	
	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Software licensing and installation	\$15.1	33%	\$13.2	34%	\$9.3	29%
Maintenance/support	10.4	23%	6.8	18%	5.9	18%
Hardware sales and commissions	20.6	44%	18.4	48%	17.4	53%
Total	\$46.1	100%	\$38.4	100%	\$32.6	100%

Software and installation revenues increased 14% during fiscal 1995, with significant contribution from both the CIF 20/20 and Silverlake System product lines.

Maintenance/support services revenue increased 53% during fiscal 1995, reflecting the addition of new customers and CommLink.

Hardware sales increased 12% during fiscal 1995.

#### *Interim Results*

Revenue for the three months ending September 30, 1995, reached \$16.1 million, a 67% increase over \$9.6 million for the same period in 1994. Net income was \$3.1 million, compared to \$1.8 million for the same period a year ago.

- Software licensing and installation revenue increased 38%. Maintenance, support and service revenue increased 113%, with Liberty contributing a significant portion of the increase. Hardware sales were up 64% from last year's quarter.
- Overall, revenues continue to be strong as a result of growth in the company's core turnkey system business and contributions from the June acquisitions of SECTOR and Liberty.

#### **Market Financials**

Virtually 100% of JHA's revenue is derived from commercial banks.

JHA's primary market is approximately 12,800 commercial banks and related financial institutions in the U.S. with assets up to nearly \$10 billion. Most of these institutions are community banks.

#### **Geographic Markets**

An estimated 95% of JHA's fiscal 1995 revenue was derived from the U.S. and the remainder from international sources.

#### **Acquisitions**

In September 1995, JHA acquired Central Interchange, Inc. of Kansas City (MO), an ATM network servicer with annual revenue of about \$500,000 that processes ATM transactions for financial institutions in the Midwest. Its major markets are Missouri, Kansas, Nebraska and Iowa.

In June 1995, JHA completed the acquisition of the SECTOR business unit of Nationar, located in Danbury (CT).

- SECTOR marketed software to banks. The unit has an installed base of approximately 35 customers concentrated in the state of New York.

- The acquisition enhances JHA's presence in the Northeast.

In June 1995, JHA acquired the community banking business (Liberty system) and customer contracts of Broadway & Seymour for a total purchase consideration of \$12 million cash.

- The Liberty business provided IBM-based software products and service bureau processing to community banks in the U.S. through centers in Charlotte (NC), St. Paul (MN) and Houston (TX).
- The unit had an installed base of approximately 340 customers in more than 35 states.
- The acquisition could add \$15 million in additional revenues. It brings new products in the areas of trust and 401(k) plan accounting that JHA will be able to market to its existing client base, adds service bureau capabilities to JHA's product line and includes a \$2 million forms and supplies business.
- The Liberty unit generated \$15 million in annual revenue last year, with \$12 million in recurring revenue from annual maintenance, disaster recovery, service bureau processing and a forms business.
- The acquired business now operates as Liberty Software, Inc., a wholly owned subsidiary of JHA.

In July 1994, JHA acquired all of the outstanding stock of CommLink Corp. of Houston (TX) for \$2.5 million in cash and additional payments based on future performance.

- CommLink is an ATM network servicer that processes electronic transactions for smaller

banks and other financial institutions, mainly in the Southwest. It also is a reseller of ATM software. CommLink's annual revenues are now approaching \$2 million.

- Texas is the largest market for CommLink, but the company also has a presence in Arkansas, Louisiana, Mississippi and California.
- CommLink operates as a wholly owned subsidiary of JHA.

### Employees

As of August 17, 1995, the company had 295 full-time employees.

### Key Products and Services

JHA offers integrated systems for community banks, savings banks and thrifts that are designed to automate all aspects of a bank's operations.

#### *Turnkey Systems/Software Products*

The company's primary systems are CIF 20/20 and the Silverlake System.

- Each system consists of several fully integrated applications software modules, such as Deposits, Loans and General Ledger, and the Customer Information File.
- The systems can be interfaced with a variety of peripheral devices used in bank operations, including ATMs, on-line teller terminals and magnetic character readers.

CIF 20/20 is the latest in a series of systems that evolved from JHA's original banking industry software.

- During fiscal 1993, JHA introduced CIF 20/20 Release 2.0., native software for the IBM AS/400, written in RPG/400 to take advantage of the relational database features and functions of the AS/400.

- CIF 20/20 runs on both the IBM AS/400 and the IBM System 36 and is designed primarily for financial institutions with total assets ranging up to \$200 million. Previous software versions were available for IBM system 34 and 32 computers.
- Average system prices are \$150,000 for hardware and \$65,000 for software.

The Silverlake System, introduced in 1988, was positioned as a new entrant to the medium-sized-bank market segment.

- The Silverlake System was developed to operate in a native environment on the AS/400, taking advantage of its relational database characteristics.
- It is designed generally for somewhat larger banks than is CIF 20/20 and multibank groups in the asset range of \$100 million to \$10 billion. This has moved JHA into the lower end of the major-bank market, which previously had been served only by mainframe computers.
- Average system prices are \$500,000 for hardware and \$200,000 for software.

The Liberty system, acquired from Broadway & Seymour in June 1995, is currently used by approximately 450 community banks for back-office functions as well as support for on-line teller terminals, check imaging, maintenance of records relating to investments, safe-deposit boxes and other consumer and financial information. The system is available as a software product or via service bureau or facilities management options.

JHA provides a range of support services to its turnkey system/software clients.

- JHA provides data conversion and software installation services to assist its customers

in implementing CIF 20/20 and Silverlake. JHA provides these services on an hourly or a fixed-fee basis, depending on the customers' preference.

- Software maintenance/support is provided under annual contracts. Services include telephone support, program modifications, and enhancements.
- Hardware maintenance is contracted between JHA and the customer. IBM performs the actual hardware maintenance under a contract between IBM and JHA.
- Mobile emergency facilities backup services are also available to CIF 20/20 customers.
- JHA also provides contingency facilities backup to its customers through six locations—Monett (MO), Charlotte (NC), Danbury (CT), Angola (IN), St. Paul (MN) and Houston (TX).

#### *International Bank Software*

Through BankVision, JHA also offers a software package targeted to international banks and other financial institutions.

- The BankVision product offers multilingual and multicurrency capabilities.
- BankVision, with fiscal 1995 revenue of about \$2.1 million and losses of \$1.2 million, has approximately 45 installations in Colombia, Indonesia, the Caribbean and the Philippines.
- The focus for BankVision will be on Colombia and surrounding areas in Latin America. There are also plans to develop a customized product for Latin America.
- JHA is distributing BankVision software through Multipolar Corporation of Indonesia.

### *ATM Network Servicing*

CommLink, acquired in July 1994, is an electronic transactions company focused on ATM switching and point-of-sale technology for financial institutions.

- CommLink provides ATM service with national network transaction capability (tied into Cirrus, Plus, Pulse, etc.) to approximately 100 JHA bank, non-JHA bank and nonfinancial institution clients.
- CommLink's technology interfaces between the local bank and national networks to provide approvals for ATM transactions. CommLink switches about 500,000 transactions monthly. Switching is billed on a per-transaction basis.
- CommLink holds the exclusive marketing rights to an ATM software package developed by JHA.
- CommLink also markets point-of-sale terminals that let a bank customer use a debit card for purchases at a merchant location rather than writing a check.
- CommLink had estimated revenue of \$1.8 million and net income of \$381,000 in fiscal 1995.

Central Interchange, acquired in 1995, provides ATM service primarily in Missouri, Kansas, Nebraska and Iowa.

### **Marketing and Sales**

JHA markets its Silverlake System and CIF 20/20 products throughout the U.S. using sales representatives employed by and working directly for JHA.

JHA also conducts international sales through its small foreign sales subsidiary, JHI.

JHA's primary market is commercial banks. JHA has not devoted significant marketing and sales efforts to other financial institutions such as savings and loans or credit unions.

- JHA does have several savings and loans and savings bank customers, but most operate more like commercial banks than traditional thrift institutions.
- With its current range of products, JHA systems are appropriate for all but the largest regional money center banks.
- Most of the sales effort and success has been with banks that have from \$2 million to \$1 billion in total assets.

### **Alliances**

In January 1995, JHA announced a technical services and marketing alliance with IBM ISSC to provide complete information systems solutions to the retail banking industry.

- ISSC will use JHA's Silverlake software application to provide banks with outsourcing and systems integration services to banks.
- Through ISSC, JHA gains access to the two segments of the bank data processing industry that it did not serve—service bureau processing and outsourcing.
- ISSC will target banks with between \$500 million and \$10 billion in assets and will not

compete with JHA's smaller bank target market.

JHA is an Industry Remarketer for IBM's AS/400.

- During fiscal 1990, JHA's international unit, JHI, was instrumental in the formation of a 25%-owned affiliate, Silverlake System Sdn Bhd (SSSB), based in Kuala Lumpur, Malaysia.
- SSSB is currently working with IBM Malaysia and is modifying the Silverlake System for operation in that country. SSSB is installing the modified Silverlake System, to be known as the Asian Pacific Version of the Silverlake System, in a major Malaysian bank.
- SSSB has agreed to pay JHI 50% of all software revenues for the right to license the Asian Pacific Version of Silverlake System in Malaysia and certain other countries in the Far East.

### Competition

In the turnkey system market, JHA competes with FIserv and ALLTEL Information Services.

In the service bureau market, major competitors include EDS, FIserv and ALLTEL.

### Assessment

JHA's strengths include:

- Flexible software combined with IBM hardware
- Strong customer support
- Significant expansion of its customer base with the Liberty acquisition
- Expansion into the service bureau, systems operations and systems integration markets through the Liberty acquisition and the ISSC alliance

Challenges over the coming year include:

- Achieving break-even or profitable results for the BankVision product line
- Expanding its check imaging system business



# Vendor Profile

A Publication from INPUT's Vendor Analysis Program – U.S.

March 1995

## J.D. Edwards & Company

**President  
& CEO:** C. Edward McVane  
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Suite 1331  
Denver, CO 80237  
**Phone:** (303) 488-4000  
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<b>Status:</b>	Employee-Owned
<b>Employees:</b>	1,700 (1/95)
<b>Revenue:</b>	\$240,600,000
<b>Fiscal Year End:</b>	10/31/94

### Key Points

- J.D. Edwards & Company is a leading developer of business applications software for the IBM AS/400.
- The company has enjoyed compound revenue growth in excess of 50% throughout its 18-year history.
- J.D. Edwards has announced a strategy that will evolve its AS/400 products to incorporate additional open systems and client/server

architectures. The company's WorldVision client/server solutions were delivered in late 1994. In the second half of 1995, J.D. Edwards will deliver configurable client applications. The host-based, thin client and configurable client versions of the software can co-exist on the same systems. Initial deliveries will target platforms such as the AS/400, RS/6000, HP 9000 and Windows NT systems.

- In October 1994, J.D. Edwards strengthened its manufacturing product offering with the announcement of process manufacturing solutions.
- In September 1994, in a move to expand its international and Asia/Pacific presence, J.D. Edwards opened J.D. Edwards Japan

in Tokyo. J.D. Edwards opened its first Asia/Pacific office in Singapore in 1993.

- J.D. Edwards has expanded its reach into Latin America with the relocation of its regional operations to Miami from Los Angeles and the opening of a marketing office in Sao Paulo (Brazil).

### **Company Description**

J.D. Edwards, founded in 1977, currently provides cross-industry and industry-specific applications software products and professional services to users of IBM AS/400 midrange computers. Products are available for financial, payroll and human resources, manufacturing, distribution, construction and real estate and government (public services) applications.

J.D. Edwards is an employee-owned company that is self-funded and has no bank debt.

### **Organization and Structure**

J.D. Edwards has U.S. area headquarters offices in Norwalk (CT), Chicago (IL), Atlanta (GA), and Costa Mesa (CA).

The company also has 31 satellite offices across North America. These offices are in the metropolitan areas of Boston (MA), Charlotte (NC), Cincinnati and Cleveland (OH), Dallas and Houston (TX), Detroit (MI), Milwaukee (WI), Minneapolis/St. Paul (MN), New York (NY), Philadelphia (PA), Phoenix (AZ), Pittsburgh (PA), Richmond (VA), Sacramento and San Francisco (CA), St. Louis (MO), Secaucus (NJ), Seattle (WA), Tampa (FL) and Washington, D.C.

International offices are located in Canada, Belgium, Brazil, England, France, Germany, Italy, Japan, Singapore and Sweden.

J.D. Edwards also has affiliates throughout Europe, Asia, Africa and South America.

### **Company Strategy**

J.D. Edwards is committed to providing a transparent migration path between the host-centric and client/server versions of its software. Since 1982, J.D. Edwards' software has been written using J.D. Edwards' proprietary World Software Architecture CASE tools.

J.D. Edwards has announced a strategy that will evolve its AS/400 products to incorporate an additional focus on open systems and client/server architectures while continuing to take responsibility for the complete business solution.

- J.D. Edwards has begun rewriting its software to be platform-independent. In addition to the AS/400, J.D. Edwards will add support for Windows/NT and UNIX. Rather than porting to every machine, J.D. Edwards' solutions-focused approach means that its initial UNIX targets will likely include the HP 9000 and the IBM RS/9000, and initial NT platforms will include DEC's Alpha machines and selected multiprocessor Intel-based machines.
- The next-generation software will incorporate object-oriented CASE tools, extended relational capabilities, an extended active data dictionary, and communications middleware. In general, J.D. Edwards will follow Microsoft standards for object technologies and windowing environments. The new products will be written in C and C++. For data access and manipulation, ANSI SQL will be the standard.
- J.D. Edwards' implementation of the client/server model will:

- Conform to the event-driven paradigm as opposed to the traditional procedural, hierarchical program design
- Use Microsoft Windows graphical presentation techniques



- Assume that significant business processing is required on both the client and server side
- Rely on a sophisticated system of data replication
- Focus on the lowest reasonable cost per seat
- J.D. Edwards will begin rolling out its rewritten software in 1995, beginning with releases of its cross-industry financial applications, followed by its distribution and manufacturing products. By 1996, the company expects that all of its products will be redeveloped using the client/server model and its new CASE technologies.

J.D. Edwards' decision to move to a multiplatform strategy was also influenced by J.D. Edwards' customers' increasing demands for software that can run in a variety of environments as they evolve.

### Financials

J.D. Edwards' fiscal 1994 revenue reached \$240.6 million, a 22% increase over fiscal 1993 revenue of \$197.6 million.

- The company has operated profitably since its inception.
- A five-year revenue summary follows:

### J.D. Edwards & Company Five-Year Revenue Summary (\$ Millions)

Item	Fiscal Year (a)				
	10/94	10/93	12/92	12/91	12/90
Revenue	\$240.6	\$197.6	\$170.0	\$123.0	\$79.0
• Percent change from previous year	22%	(b)	38%	56%	86%

(a) Beginning in 1993, J.D. Edwards changed its fiscal year from December 31 to October 31.

(b) Not meaningful due to the change in the fiscal year end.

Revenue growth for 1994 was attributed to the following:

- Strong gains in large international company clients, including more than half the Fortune 500
- Continued growth and investment in worldwide support has had a positive effect on overall customer satisfaction
- Investments in project management and industry consulting expertise has helped J.D. Edwards customers meet implementation schedules and budgets
- Resurgence of the AS/400 coupled with continued growth in the manufacturing and distribution sectors

- Forming strategic alliances with other leading software companies, such as Microsoft, has broadened J.D. Edwards' product base and helped to deliver total solutions to clients.

During fiscal 1994, international revenue increased 30% over fiscal 1993 levels.

Research and development expenses were approximately \$19.5 million in fiscal 1994, \$16.1 million in fiscal 1993 and \$11.2 million in calendar 1992.

*Revenue Analysis by Product/Service*

Approximately 62% of J.D. Edwards' 1994 revenue was derived from applications software products and software maintenance services, and 38% from

professional services, including consulting, customization, implementation, training, and publications.

A three-year summary of source of revenue follows:

**J.D. Edwards & Company  
Three-Year Source of Revenue Summary  
(\$ Millions)**

	Fiscal Year					
	10/94		10/93		12/92	
Product/Service	Revenue \$	Percent of Total	Revenue \$	Percent of Total	Revenue \$	Percent of Total
Software products	\$109.5	45%	\$97.0	49%	\$99.0	58%
Software maintenance	40.4	17%	31.0	16%	24.0	14%
Support services	69.7	29%	54.6	28%	34.0	20%
Training	22.0	9%	15.0	7%	13.0	8%
Total	\$240.6	100%	\$197.6	100%	\$170.0	100%

**Market Financials**

Approximately 60% of J.D. Edwards' 1994 revenue was derived from its cross-industry core (financial), human resource/payroll and complementary products and services and 40% from industry-specific products and services.

A further breakdown of revenue follows:

Financial products .....	51%
Human resource/payroll .....	5%
Complementary products .....	4%
Distribution .....	20%
Manufacturing .....	10%
AEC .....	7%
Energy .....	1%
Other .....	<u>3%</u>
	100%

J.D. Edwards has clients in the telecommunications, construction, entertainment/recreation, financial services, pharmaceuticals, discrete and process manufacturing, distribution, oil and gas, publishing, restaurant/food service, real estate/development,

retail, engineering/consulting, services, and travel/transportation/ hospitality industries, as well as state and local governments, associations, nonprofit organizations and educational institutions.

J.D. Edwards is now focusing its energy business on the downstream market—operations such as refining and bulk inventory distribution—which tends to include large, multinational companies.

**Geographic Markets**

Approximately 70% of J.D. Edwards' 1994 revenue was derived from the U.S., 22% from Europe, 4% from the Asia/Pacific and 4% from Latin America.

**Employees**

As of January 1995, J.D. Edwards had approximately 1,700 employees, compared to 1,600 employees as of October 31, 1994 and 1,300 at the end of 1993.

**Key Products and Services**

J.D. Edwards' integrated applications software products are available for IBM AS/400 computers.

There are currently 4,600 installations for 3,000 clients worldwide.

- The software is supported in 19 languages—Arabic, Brazilian Portuguese, Chinese (simplified and traditional), Czech, Danish, Dutch, English, Finnish, French, German, Greek, Italian, Japanese, Latin American Spanish, Polish, Portuguese, Russian, Slovak and Swedish.
- J.D. Edwards also offers multiple currency capabilities, value-added tax features, and other multinational functions as integral components of its software products.
- J.D. Edwards' current cross-industry and industry-specific applications software products are shown in Exhibits A and B.

Product introductions/enhancements recently announced include the following:

- In October 1994, J.D. Edwards announced that process manufacturing capabilities will be offered as an enhancement to its existing J.D. Edwards Distribution/Manufacturing packages. The software will facilitate the making of products such as liquids, fibers, powders or gases in such industries as pharmaceuticals, foodstuffs and beverages.
- In October 1994, as part of its migration path to comprehensive client/server solutions, J.D. Edwards announced WorldVision™, a PC-based windowing software product that provides full point-and-click access to J.D. Edwards AS/400 applications.
- In March 1994, J.D. Edwards announced a new Contract and Service Billing module for its construction software product line.

J.D. Edwards offers five categories of client service—classroom training, on-site consulting, telephone support, periodic software updates and custom programming services.

- In 1994, J.D. Edwards announced the availability of a 24-hour response line around the world, staffed by product and industry specialists.
- J.D. Edwards offers regularly scheduled education and training classes in its regional training centers located in Atlanta, Chicago, Dallas, Denver, Houston, Newport Beach, New York, San Francisco, Washington, D.C., and Toronto. The company also offers on-site training.
  - Courses are available for a range of topics, from J.D. Edwards software training to AS/400 hardware and software technology.
  - During 1994, J.D. Edwards held 2,635 classes, attended by 23,719 clients and affiliates.
- J.D. Edwards also provides software implementation, customization, consulting and an ongoing software updating service.

## Clients

J.D. Edwards currently has more than 3,000 clients worldwide.

J.D. Edwards added 600 new clients during 1994, including Cargill, Ethan Allen, Telecom Argentina, New Jersey Natural Gas, Ryland Group and Warner Lambert Canada, Inc.

Clients added during 1993 include Target Stores, RJ Reynolds, Amgen, Johnson & Johnson, Ethan Allen, Hamilton Standard and Castrol.

## Marketing and Sales

In North America and internationally, J.D. Edwards markets its products through its direct sales force and through a network of more than 100 fully certified business partners.

**Exhibit A**  
**J.D. Edwards Software Products**

Application Area/Product Name	Application Area/Product Name
<b>Financial</b> <ul style="list-style-type: none"><li>- General Ledger</li><li>- Accounts Payable</li><li>- Accounts Receivable</li><li>- FASTR</li><li>- Financial Modeling and Budgeting</li><li>- Address Book/Electronic Mail</li><li>- Fixed Assets</li><li>- Remote Voucher Entry</li><li>- Travel Expense Management</li><li>- Currency Conversion</li><li>- Cash Basis Accounting</li></ul> <b>Human Resources Management</b> <ul style="list-style-type: none"><li>- Human Resources</li><li>- Payroll</li><li>- Canadian Payroll</li><li>- Labor Distribution</li><li>- Remote Time Entry</li><li>- Training and Development</li></ul> <b>Reporting Tools</b> <ul style="list-style-type: none"><li>- DREAM Writer</li><li>- Financial Reporting (FASTR)</li><li>- World Writer</li></ul>	<b>Complementary Products</b> <ul style="list-style-type: none"><li>- Bar Coding/Data Collection</li><li>- Connectivity/Networking Solutions</li><li>- Distributed Data Processing</li><li>- Document Imaging</li><li>- Document/Report Management</li><li>- Electronic Data Interchange</li><li>- Enterprise Information Systems (EIS)</li><li>- Facsimile</li><li>- File Management</li><li>- Finite Capacity Planning</li><li>- Forms Management</li><li>- Human Resources Management Products</li><li>- Lease Management</li><li>- PC Connectivity</li><li>- Source Code Control</li><li>- Taxes</li></ul>

## Exhibit B

### J.D. Edwards Industry-Specific Software Products

Application Area/Product Name	Application Area/Product Name
<b>Distribution Logistics</b> <ul style="list-style-type: none"> <li>- Distribution &amp; Logistics</li> <li>- Sales Order Management</li> <li>- Configuration Management</li> <li>- Inventory Management</li> <li>- Advanced Warehouse Management</li> <li>- Forecasting</li> <li>- Distribution Requirements Planning</li> <li>- Purchase Order Processing</li> <li>- Electronic Data Interchange</li> <li>- Radio Frequency/Hand Held Data Collection</li> <li>- Sales Analysis</li> <li>- Transportation Management</li> </ul>	<b>Engineering, Construction and Real Estate</b> <ul style="list-style-type: none"> <li>- Job Cost Accounting</li> <li>- Equipment Management</li> <li>- Contract Management</li> <li>- Contract Billing</li> <li>- Purchasing</li> <li>- Work Orders</li> <li>- Engineering/Service Billing</li> <li>- Project Change Management</li> <li>- Project Management</li> <li>- Equipment/Plant Maintenance</li> </ul>
<b>Manufacturing</b> <ul style="list-style-type: none"> <li>- Engineering Change Management</li> <li>- Product Data Management</li> <li>- Shop Floor Control</li> <li>- Master Production Scheduling</li> <li>- Material Requirements Planning</li> <li>- Capacity Requirements Planning</li> <li>- Forecasting</li> <li>- Configuration Management</li> <li>- Enterprise Facility Planning</li> <li>- Maintenance Management</li> </ul>	<b>Public Services</b> <ul style="list-style-type: none"> <li>- Fund &amp; Encumbrance Accounting</li> <li>- Grant Accounting</li> <li>- Capital Project Management</li> <li>- Facilities Management</li> <li>- Materials Management</li> <li>- Procurement Management</li> </ul>

#### Alliances

J.D. Edwards has more than 100 business partners in 30 countries.

J.D. Edwards has been an IBM Premier Business Partner since IBM introduced that designation and in August 1994 announced its participation in the IBM Market Development Program.

Examples of recent partnerships/alliances include the following:

- J.D. Edwards has a worldwide business and technical relationship with Microsoft for providing enterprise-wide applications using the Microsoft Windows NT Server. J.D. Edwards has chosen the Windows NT platform as a strategic development environment as the company generates its suite of

financial and manufacturing software for the client/server environment.

- J.D. Edwards is accessing Technology from Seagull Business Software for its client/server development, including the WorldVision product.
- J.D. Edwards and Easy Access, Inc. have partnered to offer complementary products to state and local government for records management, conveyance, property tax appraisal and assessment, property tax billing, collection and distribution.
- J.D. Edwards is marketing The Tracs Corporation's investment software to J.D. Edwards' public services customers.
- J.D. Edwards also has cooperative marketing relationships with various financial/professional services firms, including Coopers & Lybrand, Deloitte & Touche, Richard A. Eisner & Company, Ernst & Young and Price Waterhouse.

### Competition

J.D. Edwards' primary competitors include SAP, System Software Associates, Software 2000, Lawson Associates, American Software and Andersen Consulting.

### Assessment

J.D. Edwards' strengths include:

- *Worldwide capability*—J.D. Edwards software can be found in 78 countries and in 19 languages around the world.
- *Enterprise-wide functionality*—Offering total business solutions that can run an entire enterprise.
- *Low risk migration to client/server*—Allowing the customer to choose how quickly and to what level they want to migrate to client server.
- *Highly integrated applications*—Integrated applications come from the same set of source

code, simplifying the process of installing, migrating and upgrading the software.

- *Run-time flexibility*—Ensuring that custom code is rarely required, reducing the cost of ownership and cost of maintenance.

J.D. Edwards' main concern is its lack of name recognition. Although the company is well known in the AS/400 marketplace, the company needs to make a name for itself in the other markets it plans on becoming a part of.

## COMPANY PROFILE

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INPUT®

### J.D. EDWARDS & COMPANY

8055 East Tufts Avenue  
Suite 1331  
Denver, CO 80237  
Phone: (303) 488-4000  
Fax: (303) 488-4678

President  
& CEO: C. Edward McVaney  
Status: Employee-Owned Company  
Total Employees: 1,300 (10/93)  
Total Revenue: \$170,000,000  
Fiscal Year End: 12/31/92

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### Key Points

- J.D. Edwards & Company (JDE) is a leading developer of business applications software for the IBM AS/400.
- The company has enjoyed compound revenue growth in excess of 50% throughout its 16-year history.
- JDE has recently announced a strategy that will evolve its AS/400 products to incorporate an additional focus on open systems and client/server architectures. First releases of its rewritten software are scheduled for early 1994. Initial deliveries will target platforms such as the AS/400, RS/6000 HP 9000, and DEC Alpha.
- JDE has recently expanded its reach into Latin America with the relocation of its regional operations to Miami from Los Angeles and the opening of a marketing office in Sao Paulo (Brazil). The company also added an office in Singapore to serve the Pacific Rim.
- Effective January 1, 1993, JDE turned a portion of its energy-specific products (exploration and production-based "upstream" products) over to Dallas-based Artesia Data Systems so that JDE can focus its resources on downstream requirements--those related to manufacturing and distribution--for its large multinational oil company clients.
- Beginning in 1993, JDE will change its fiscal year end from December 31 to October 31 in order to smooth out demand cycles.



**Company  
Description**

J.D. Edwards & Company (JDE), founded in 1977, currently provides cross-industry and industry-specific applications software products and professional services to users of IBM AS/400 midrange computers. Products are available for financial, payroll and human resources, manufacturing, distribution, construction and real estate, and government (public services) applications.

JDE is an employee-owned company that is self-funded and has no bank debt.

**Strategy**

JDE is committed to strict quality standards, adherence to IBM's SAA and AD/Cycle, the AS/400's relational data base capabilities, JDE's active data dictionary, and continued evaluation of new technologies. Since 1982, JDE's software has been written using JDE's proprietary World Software Architecture CASE tools.

JDE has recently announced a strategy that will evolve its AS/400 products to incorporate an additional focus on open systems and client/server architectures while continuing to take responsibility for the complete business solution.

- JDE has begun rewriting its software to be platform-independent. In addition to the AS/400, JDE will add support for Windows/NT and UNIX. Rather than porting to every machine, JDE's solutions-focused approach means that its initial UNIX targets will likely include the HP 9000 and the IBM RS/9000, and initial NT platforms will include DEC's Alpha machines and selected multiprocessor Intel-based machines.
- The next-generation software will incorporate object-oriented CASE tools, extended relational capabilities, an extended active data dictionary, and communications middleware. In general, JDE will follow Microsoft standards for object technologies and windowing environments. The new products will be written in C and C++. For data access and manipulation, ANSI SQL will be the standard.
- JDE's implementation of the client/server model will:
  - Conform to the event-driven paradigm as opposed to the traditional procedural, hierarchical program design
  - Use Microsoft Windows graphical presentation techniques
  - Assume that significant business processing is required on both the client and server side



- Rely on a sophisticated system of data replication
- Focus on the lowest reasonable cost per seat
- JDE will begin rolling out its rewritten software in 1994, beginning with releases of its cross-industry financial applications, followed by its distribution and manufacturing products. By 1996, the company expects that all of its products will be redeveloped using the client/server model and its new CASE technologies.

JDE's decision to move to a multiplatform strategy was also influenced by JDE's customers' increasing demands for software that can run in a variety of environments as they evolve.

## Financials

JDE's 1992 revenue reached \$170.0 million, a 38% increase over \$123.0 million for 1991. The company has operated profitably since its inception. A five-year revenue summary follows:

**J.D. EDWARDS & COMPANY  
FIVE-YEAR REVENUE SUMMARY  
(\$ millions)**

ITEM	FISCAL YEAR				
	1992	1991	1990	1989	1988
Revenue	\$170.0	\$123.0	\$79.0	\$42.5	\$23.0
• Percent increase (decrease) from previous year	38%	56%	86%	85%	39%

Revenue growth for 1992 was attributed to the following:

- Strong gains in large international company clients, including more than half the Fortune 500
- Continued growth and investment in worldwide support has had a positive effect on overall customer satisfaction
- Investments in project management and industry consulting expertise has helped JDE customers meet implementation schedules and budgets
- Becoming a major player in the worldwide manufacturing industry, while maintaining leadership in the financial, distribution, and construction industries

- Forming strategic alliances with other leading software companies has broadened JDE's product base and helped to deliver total solutions to clients.

During 1992, international revenue increased 29% over 1991 levels.

Research and development expenditures were approximately \$11.2 million in 1992, \$9.2 million in 1991, and \$7.6 million in 1990.

## Market Financials

Approximately 62% of JDE's 1992 revenue was derived from its cross-industry applications software products and services and 38% from industry-specific products and services. A further breakdown of revenue follows:

Core (financial) products	62%
Human resource/payroll	5%
Distribution	16%
Manufacturing	7%
Job cost	4%
Property management	1%
Other	<u>5%</u>
	100%

JDE has clients in the telecommunications, construction, entertainment/recreation, financial services, health care/medical, discrete and process manufacturing, distribution, oil and gas, publishing, restaurant/food service, real estate/development, retail, engineering/consulting, services, and travel/transportation/ hospitality industries, as well as state and local governments, associations, nonprofit organizations, and educational institutions.

Approximately 72% of JDE's 1992 revenue was derived from applications software products and software maintenance services, and 28% from professional services, including consulting, customization, implementation, training, and publications.

A three-year summary of source of revenue follows:

**J.D. EDWARDS & COMPANY**  
**THREE-YEAR SOURCE OF REVENUE SUMMARY**  
(\$ millions)

ITEM	FISCAL YEAR					
	1992		1991		1990	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Software:						
- Software products	\$99.0	58%	\$70.0	57%	\$49.0	62%
- Software maintenance	24.0	14%	16.0	13%	7.0	9%
Professional services:						
- Support services	34.0	20%	29.0	24%	18.0	23%
- Training and publications	13.0	8%	8.0	6%	5.0	6%
<b>TOTAL</b>	<b>\$170.0</b>	<b>100%</b>	<b>\$123.0</b>	<b>100%</b>	<b>\$79.0</b>	<b>100%</b>

### Geographic Markets

Approximately 69% (\$117 million) of JDE's 1992 revenue was derived from the U.S., 20% (\$34 million) from Europe, 6% (\$10 million) from the Asia/Pacific, and 5% (\$9 million) from other international sources.

### Operations/Structure

JDE has U.S. regional trading area headquarters offices in Norwalk (CT), Chicago (IL), Atlanta (GA), and Costa Mesa (CA). The company also has 31 satellite offices across North America.

International offices are located in Canada, Belgium, Brazil, England, France, Germany, Italy, Japan, Singapore, and Sweden.

JDE also has affiliates throughout Europe, Asia, Africa, and South America.

### Acquisitions/Divestitures

Effective January 1, 1993, JDE sold certain of its energy-specific software products to Dallas-based Artesia Data Systems (ADS).

- ADS has assumed ownership of JDE products for gas balancing, land management, oil and gas contracts, production accounting, and revenue distribution. These "upstream" applications focus on tasks such as exploration and production. ADS will also take over customer support for these products.

- ADS, also an IBM Industry Remarketer, has been serving the energy industry for 11 years and has more than 150 customers.
- JDE is now focusing its energy business on the downstream market--operations such as refining and bulk inventory distribution--which tends to include large, multinational companies.

**Employees**

As of December 1992, JDE had 1,200 employees. The company currently has 1,300 employees, of which 215 are located outside the U.S.

**Key Products and Services**

JDE's integrated applications software products are available for IBM AS/400 computers. There are currently 12,000 product installations for 2,775 clients worldwide.

- The software is supported in 12 languages: Arabic, Dutch, English, French, German, Hebrew, Italian, Japanese, Latin American Spanish, Norwegian, Portuguese, and Swedish.
- JDE also offers multiple currency capabilities, value-added tax features, and other multinational functions as integral components of its software products.
- JDE's current cross-industry and industry-specific applications software products are shown in Exhibits A and B.

Product introductions/enhancements announced this year include the following:

- Integrating imaging support into its applications. The first JDE applications available are Accounts Payable, Construction Management, and Real Estate Management.
- A Warehouse Management module, fully integrated with JDE's distribution products
- Increased transaction support for EDI
- An enterprise planning and scheduling module for use in multi-facility manufacturing and distribution environments
- Engineering Change Management software for manufacturing

## EXHIBIT A

## JDE CROSS-INDUSTRY PRODUCTS

## APPLICATION AREA/PRODUCT NAME

**Financial**

- Address Book/Electronic Mail
- General Ledger & Basic Financials
- Financial Modeling, Budgeting, & Allocations
- Accounts Receivable
- Accounts Payable
- PC Data Entry
- Cash Basis Accounting
- Currency Conversion Accounting
- Fixed Assets
- Equipment Management

**Payroll and Human Resource Management**

- Payroll Time Accounting
- Payroll
- PC Data Entry for Payroll
- Human Resource Management
- Training and Development

**Reporting Tools**

- DREAM Writer
- Financial Reporting (FASTR)
- World Writer

**Complementary Products**

- Andrew Connectivity Solutions \*
- Computer Integrated Fax \*
- Distributed Data Processing
- dclink Bar Coding \*
- Eagle/400 \*
- Electronic Burst & Bind \*
- Electronic Data Interchange
- Finite Capacity Planning \*
- Form 400 \*
- Imaging Solutions
- Laser Checkwrite \*
- ORG'anon \*
- Payroll Tax Tables
- PC Budget Upload
- PC Data Entry - Client/Server Workstation
- Questview \*
- Retail Systems \*
- S/COMPARE HARMONIZER \*
- HARMONIZER PLUS \*
- Varsity Shipper \*
- World VISTA \*
- World VISTA EIS \*

\* *Third-party products*

## EXHIBIT B

## JDE INDUSTRY-SPECIFIC PRODUCTS

APPLICATION AREA/PRODUCT NAME
<b>Distribution</b> <ul style="list-style-type: none"><li>- Sales Order Processing</li><li>- Sales Analysis</li><li>- EDI</li><li>- Configuration Management</li><li>- Purchase Order Processing</li><li>- Distribution Requirements Planning</li><li>- Inventory Management</li><li>- Order Management</li><li>- Replenishment Management</li><li>- Warehouse Management</li><li>- Enterprise Facility Planning</li></ul>
<b>Manufacturing</b> <ul style="list-style-type: none"><li>- Product Data Management</li><li>- Shop Floor Control</li><li>- Master Production Scheduling</li><li>- Material Requirements Planning</li><li>- Capacity Requirements Planning</li><li>- Sales Forecasting</li><li>- Repetitive Manufacturing</li><li>- Job/Work Order-Based Manufacturing</li></ul>
<b>Construction</b> <ul style="list-style-type: none"><li>- Job Cost Accounting</li><li>- Payroll</li><li>- Purchasing</li><li>- Human Resource Management</li><li>- Equipment Management</li><li>- Contract Management</li><li>- Project Change Management</li><li>- Contract Billing</li><li>- Engineering/Service Billing</li><li>- AIA Billing</li><li>- Work Orders with Service Billing</li></ul>
<b>Real Estate Management</b> <ul style="list-style-type: none"><li>- Property Management</li><li>- Facility Management</li><li>- Remote Site Property Management</li></ul>
<b>Public Services</b> <ul style="list-style-type: none"><li>- General Ledger &amp; Basic Financials</li><li>- Purchase Order Processing</li><li>- Fixed Assets</li><li>- Equipment Management</li><li>- Contract Management</li></ul>

Support and professional services provided by JDE include the following:

- The JDE response line is a telephone assistance service staffed by product and industry specialists.
- JDE offers regularly scheduled education and training classes in its regional training centers located in Atlanta, Chicago, Dallas, Denver, Houston, Newport Beach, New York, San Francisco, Washington, D.C., and Toronto. The company also offers on-site training.
  - Courses are available for a range of topics, from JDE software training to AS/400 hardware and software technology.
  - During 1992, JDE held 1,982 classes, attended by 15,772 clients and affiliates.
- JDE also provides software implementation, customization, consulting, and an ongoing software updating service.

## **Marketing and Sales**

In North America and internationally, JDE markets its products through its direct sales force and through a network of fully certified business partners.

## **Alliances**

JDE has more than 100 business partners in 30 countries. Examples of partnerships/alliances include the following:

- JDE has been an IBM Business Partner since IBM introduced that designation, and in January 1993, was designated a Premier IBM Business Partner.
- JDE is marketing Data Systems International's dcLink data collection and processing software as an additional JDE module.
- JDE is marketing Management Reports, Inc.'s PC-based, remote site property management system.
- JDE is a reseller of Andrew Corp.'s connectivity products.
- JDE markets Distribution Resources Company's Customer Service Workstation and PC Customer Order Entry client/server-based packages to distributors and manufacturer distributors.

- JDE and Synon Inc. are working to develop interfaces between JDE's applications products and Synon's CASE products.
- JDE and Network Data Corporation, which specializes in PC-based POS and information systems for convenience stores, have a joint marketing agreement.
- JDE also has cooperative marketing relationships with various financial/professional services firms, including Coopers & Lybrand, Deloitte & Touche, Richard A. Eisner & Company, Ernst & Young, and Price Waterhouse.

**Clients**

JDE currently has over 2,400 clients worldwide.

Clients added during 1993 include Cargill, Target Stores, RJ Reynolds, Amgen, Johnson & Johnson, Ethan Allen, Hamilton Standard, Castrol, and Nike.

Clients added during 1992 include Mobil Oil, Smith Kline Beecham, Tupperware, Saab, Volvo, Penta, Pechiney, Duracell, Carl Zeiss, ABB, Waste Management, and Morrison Knudsen.

**Competitors**

JDE's primary competitors include System Software Associates, Software 2000, Lawson Associates, American Software, and Andersen Consulting.



## COMPANY PROFILE

### J.D. EDWARDS & COMPANY

4949 South Syracuse Street  
Denver, CO 80237  
(303) 488-4000

C. Edward McVane, Chairman & President  
Employee-Owned Company  
Total Employees: 860 (8/91)  
Total Revenue, Fiscal Year End  
12/31/90: \$79,000,000

### The Company

J.D. Edwards & Company (JDE), founded in 1977, provides cross-industry and industry-specific application software products and professional services to users of IBM AS/400 midrange computers.

- JDE is an employee-owned company that is self-funded and has no bank debt.
- The company is committed to strict quality standards, adherence to IBM's SAA and AD/Cycle, the AS/400's relational data base capabilities, JDE's active data dictionary, and continued evaluation of new technologies.
- JDE also has cooperative marketing relationships with various financial/professional services firms, including Coopers & Lybrand, Deloitte & Touche, Richard A. Eisner & Company, Ernst & Young, and Price Waterhouse.

JDE's 1990 revenue reached approximately \$79.0 million, an 86% increase over 1989 revenue of \$42.5 million. The company has operated profitably since its inception. A five-year revenue summary follows:

**J.D. EDWARDS & COMPANY  
FIVE-YEAR REVENUE SUMMARY  
(\$ millions)**

ITEM	FISCAL YEAR				
	1990	1989	1988	1987	1986
Revenue	\$79.0	\$42.5	\$23.0	\$16.5	\$17.4
• Percent increase (decrease) from previous year	86%	85%	39%	(5%)	N/A

Research and development expenditures were approximately \$7.6 million in 1990, \$7.6 million in 1989, and \$5.2 million in 1988.

Revenue for the six months ending June 30, 1991 reached \$49 million, an 80% increase over \$27.2 million for the same period last year.

- Sales growth was primarily attributed to large multinational accounts and the demand for manufacturing and construction industry software, as well as JDE's mainstay financial products.
- International revenue grew 358%, reflecting the company's plans to build a worldwide support structure for its products.
- JDE management states that IBM's announcement of the D Model AS/400's in late May seems to have spurred buying decisions.

As of December 1990, JDE had 680 employees. The company currently has 860 employees, of which 93 are located outside the U.S.

JDE's primary competitors include System Software Associates, Software 2000, Lawson Associates, Pansophic Systems, American Software, and Andersen Consulting.

### **Key Products and Services**

Approximately 71% of JDE's 1990 revenue was derived from application software products and software maintenance services, and 29% from professional services, including consulting, customization, implementation, training, and publications.

A three-year summary of source of revenue follows:

**J.D. EDWARDS & COMPANY  
THREE-YEAR SOURCE OF REVENUE SUMMARY  
(\$ millions)**

ITEM	FISCAL YEAR					
	1990		1989		1988	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Software:						
- Software products	\$49.0	62%	\$28.0	66%	\$12.0	52%
- Software maintenance	7.0	9%	4.0	9%	2.5	11%
Professional services:						
- Support services	18.0	23%	8.0	19%	7.5	33%
- Training and publications	5.0	6%	2.5	6%	1.0	4%
<b>TOTAL</b>	<b>\$79.0</b>	<b>100%</b>	<b>\$42.5</b>	<b>100%</b>	<b>\$23.0</b>	<b>100%</b>

JDE's integrated application software products are available for IBM AS/400 computers. There are currently 12,000 product installations for 2,000 clients worldwide.

- The software is supported in eight languages: Dutch, English, French, German, Italian, Latin American Spanish, Portuguese, and Swedish. Other languages planned for support are Arabic, Hebrew, Japanese, and Norwegian.
- JDE also offers multiple currency capabilities, value-added tax features, and other multinational functions as integral components of its software products.

JDE currently markets and supports various cross-industry and industry-specific application software products, as shown in Exhibits A and B.

## EXHIBIT A

## JDE CROSS-INDUSTRY PRODUCTS

## APPLICATION AREA/PRODUCT NAME

**Financial**

- Address Book/Electronic Mail
- General Ledger & Basic Financials
- Financial Modeling, Budgeting, & Allocations
- Accounts Receivable
- Accounts Payable
- PC Data Entry
- Cash Basis Accounting
- Multiple Currency Accounting
- Fixed Assets
- Equipment Management

**Payroll and Human Resource Management**

- Payroll Time Accounting
- Payroll
- PC Data Entry for Payroll
- Human Resource Management

**Reporting Tools**

- DREAM Writer
- Financial Reporting (FASTR)
- World Writer

**Complementary Products**

- Commander 400 (EIS) \*
- Distributed Data Processing
- Retail Systems \*
- Computer Integrated Fax \*
- Human Resources Organization Charts \*
- Laser Check Printer \*
- PC Data Entry A/P
- PC Data Entry P/R
- Form/400 \*

\* *Third-party products*

## EXHIBIT B

## JDE INDUSTRY-SPECIFIC PRODUCTS

APPLICATION AREA/PRODUCT NAME
<b>Distribution</b> <ul style="list-style-type: none"><li>- Inventory Management</li><li>- Sales Order Processing</li><li>- Sales Analysis</li><li>- Purchase Order Processing</li><li>- Distribution Resource Planning</li></ul>
<b>Manufacturing</b> <ul style="list-style-type: none"><li>- Product Data Management</li><li>- Shop Floor Control</li><li>- Master Production Scheduling</li><li>- Material Requirements Planning</li><li>- Capacity Requirements Planning</li><li>- Sales Forecasting</li></ul>
<b>Construction</b> <ul style="list-style-type: none"><li>- Job Cost Accounting</li><li>- Payroll</li><li>- Human Resource Management</li><li>- Equipment Management</li><li>- Contract Management</li><li>- AIA Billing</li><li>- Purchasing</li><li>- Work Orders with Service Billing</li></ul>
<b>Real Estate Management</b> <ul style="list-style-type: none"><li>- Property Management</li><li>- Facility Management</li><li>- Lease Administration Management</li><li>- Space Planning/Reconciliation</li><li>- Financial Forecasting/Reporting</li><li>- Contracts Agreement Processing</li></ul>
<b>Public Sector/Association/Not for Profit</b> <ul style="list-style-type: none"><li>- General Ledger &amp; Basic Financials</li><li>- Purchase Order Processing</li><li>- Fixed Assets</li><li>- Equipment Management</li><li>- Contract Management</li></ul>
<b>Energy</b> <ul style="list-style-type: none"><li>- Land Management</li><li>- Joint Interest Billing</li><li>- Production Accounting</li><li>- Revenue Distribution</li><li>- Contracts</li><li>- Gas Balancing</li></ul>

Support and professional services provided by JDE include the following:

- The JDE response line is a telephone assistance service staffed by product and industry specialists.
- JDE offers regularly scheduled education and training classes in its regional training centers located in Atlanta, Chicago, Dallas, Denver, Houston, Newport Beach, New York, San Francisco, Washington, D.C., and Toronto. The company also offers on-site training.
  - Courses are available for a range of topics, from JDE software training to AS/400 hardware and software technology.
  - During 1990, JDE held approximately 1,000 classes, attended by about 10,000 clients and affiliates.
- JDE also provides software implementation, customization, consulting, and an ongoing software updating service.

### Industry Markets

Approximately 59% of JDE's 1990 revenue was derived from its cross-industry application software products and services and 41% from industry-specific products and services. A further breakdown of revenue follows:

Core (financial) products	59%
Human resource/payroll	10%
Distribution	17%
Manufacturing	5%
Job cost	6%
Property management	1%
Other	2%
	100%

JDE has clients in the telecommunications, construction, entertainment/recreation, financial services, health care/medical, discrete and process manufacturing, distribution, oil and gas, publishing, restaurant/food service, real estate/development, retail, engineering/consulting, services, and travel/transportation/hospitality industries, as well as state and local governments, associations, nonprofit organizations, and educational institutions.

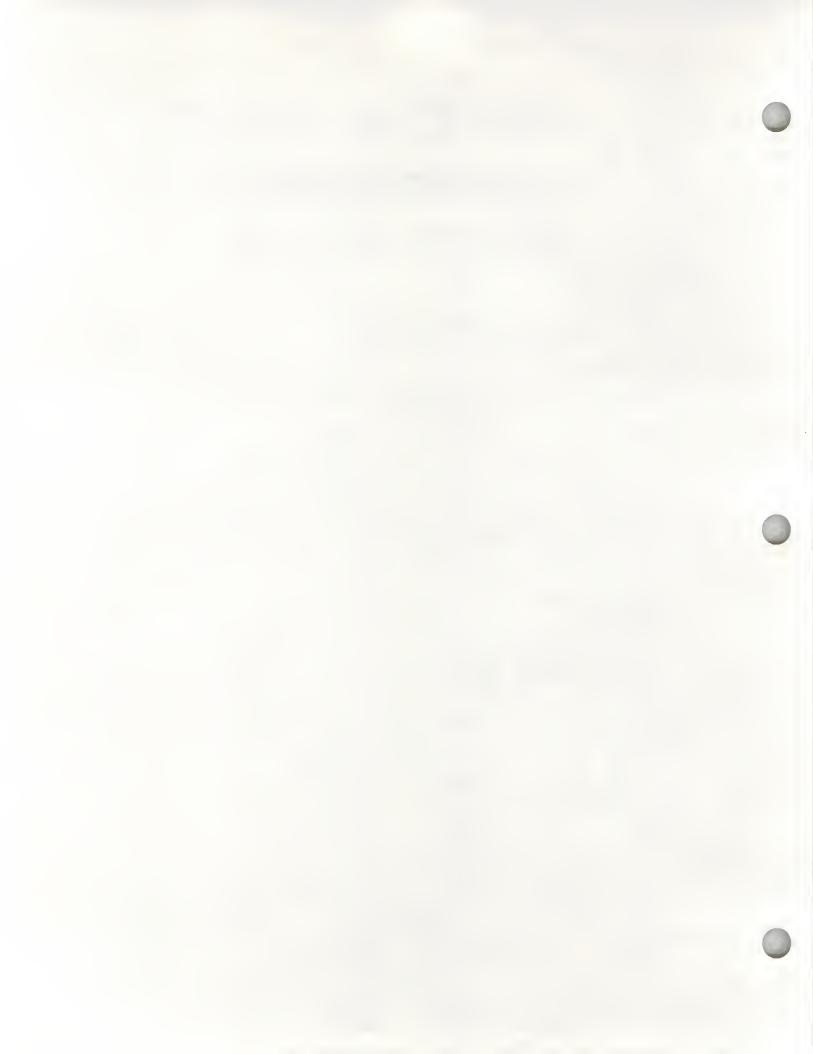
### Geographic Markets

Approximately 80% of JDE's 1990 revenue was derived from the U.S., 11% from Europe, and 9% from other international sources.

U.S. offices are located in Atlanta (GA), Oak Brook (IL), Dallas (TX), Denver (CO), Costa Mesa and Foster City (CA), East Rutherford (NJ), and Herndon (VA).

International offices are located in Canada, Belgium, Germany, England, Italy, France, and Australia.

JDE also has affiliates throughout Europe, Asia, Africa, and South America.





## COMPANY PROFILE

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**INPUT<sup>SM</sup>**

### **JACK HENRY & ASSOCIATES, INC.**

663 Highway 60  
P.O. Box 807  
Monett, MO 65708  
Phone: (417) 235-6652  
Fax: (417) 235-8406

Chairman:	John W. Henry
President & CEO:	Jerry D. Hall
Status:	Public Corporation
Total Employees:	154 (8/93)
Total Revenue:	\$32,589,000
Fiscal Year End:	6/30/93

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### **Key Points**

- Jack Henry & Associates (JHA) is a leading vendor of turnkey systems for U.S. community banks and claims to be the IBM Industry Remarketer to banking organizations with assets up to \$300 million, a market JHA has served since its inception.
- JHA now offers all of its new customers truly native software products for use on the IBM AS/400.
- The company recently expanded its international presence with the acquisition of BankVision Software Ltd., providing JHA with enhanced global relationships and currency exchange and multilingual capabilities that are essential for developing a worldwide customer base. Prior to the acquisition, JHA had a few installations outside the U.S., primarily in the Caribbean.
- JHA recently announced a new proprietary software package for ATMs that is reportedly a fraction of the cost of competing systems and the only system that can be powered by a PC. The sales of this product have been contracted to CommLink, a provider of ATM systems.

**Company Description**

JHA, founded in 1976, provides integrated (turnkey) systems and associated support services to banks and other financial institutions. The company has more than 900 installations in community banks in 45 U.S. states and more than 45 installations in foreign countries.

Its proprietary applications software, which operates on IBM midrange computers, is offered under two systems: CIF 20/20™, typically for banks with less than \$200 million in assets, and the Silverlake System® with assets of \$100 million to \$3 billion.

JHA also has a license agreement with a data service center headquartered in Franklin (TN), whereby processing services using JHA software products are marketed to banks in Tennessee, southern Kentucky and northern Alabama.

**Strategy**

JHA built its business by understanding community banking operations and developing applications and related products to facilitate them.

JHA continues to build a loyal customer base by fostering long-term relationships and responding promptly to customers' changing needs. The company's strategy includes:

- Specializing in the IS needs of commercial banks with assets under \$3 billion;
- Providing quality products and strong support;
- Continually enhancing products, taking into account user group and customer suggestions, and changing bank regulations;
- Upgrading many of its CIF customers from IBM System 3X systems to the IBM AS/400;
- Developing new products, including a software package for ATMs, a loan-servicing package and a rewrite of the Silverlake general ledger package.

JHA also plans to expand its share of the banking market both through internal growth and selective acquisitions.

- As a result of the acquisition of BankVision, JHA has 45 product installations outside the U.S. and plans to expand further, particularly in the Pacific Rim and Latin America.

**Financials**

JHA's fiscal 1993 revenue was \$32.6 million, a 36% increase over fiscal 1992 revenue of \$23.9 million. Net income of \$6.3 million for fiscal 1993 includes an extraordinary gain of \$886,000 from an out-of-court settlement.

A five-year financial summary follows:

**JACK HENRY & ASSOCIATES, INC.  
FIVE-YEAR FINANCIAL SUMMARY  
(\$ millions, except per share data)**

ITEM	FISCAL YEAR				
	6/93	6/92	6/91	6/90	6/89
Revenue	\$32.6	\$23.9	\$20.7	\$15.2	\$11.4
• Percent change from previous year	36%	15%	36%	36%	N/A
Income (loss) before taxes	\$7.9	\$6.1	\$3.5	\$1.6	\$(0.5)
• Percent change from previous year	30%	74%	119%	420%	N/A
Net income (loss)	\$6.3	\$4.0	\$2.2	\$(0.5)	\$(1.3)
• Percent change from previous year	(a) 58%	(a) 82%	540%	(b) 62%	(b) N/A
Earnings per share	\$0.72	\$0.48	\$0.27	\$0.11	N/A
• Percent change from previous year	50%	78%	145%	N/A	N/A

- (a) Includes extraordinary income of \$886,000 in fiscal 1993 associated with settlement of certain litigation with Unisys. Also includes income of \$101,000 in fiscal 1993 and \$67,000 in fiscal 1993 from discontinued operations associated with FinSer Capital Corporation, JHA's brokerage/financial services and trust businesses.
- (b) Includes losses from discontinued operations of \$1.5 million in fiscal 1990 and \$1.0 million in fiscal 1989 associated with FinSer.

Revenue growth in fiscal 1993 was attributed to growth in all three of JHA's business areas—software sales, hardware sales and maintenance/support.

Revenue for the three months ending September 30, 1993, reached \$9.2 million, a 43% increase over \$6.4 million for the same period in 1992. Net income was \$1.4 million, compared to \$1.2 million for the same period a year ago.

**Market  
Financials**

Virtually 100% of JHA's revenue is derived from commercial banks.

JHA's primary market is approximately 14,000 commercial banks and related financial institutions with assets up to \$3 billion. Most of these institutions are community banks.

Approximately 29% of JHA's fiscal 1993 revenue was derived from software (including licensing of applications software and conversion, installation, and customization services), 53% from hardware (equipment and maintenance) and 18% from maintenance/support services (software maintenance). A three-year summary of source of revenue follows:

**JACK HENRY & ASSOCIATES, INC.  
THREE-YEAR SOURCE OF REVENUE SUMMARY  
(\$ millions)**

ITEM	FISCAL YEAR					
	6/93		6/92		6/91	
	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL	REVENUE \$	PERCENT OF TOTAL
Software licensing and installation	\$9.3	29%	\$7.5	32%	\$5.5	27%
Maintenance/support	5.9	18%	4.8	20%	3.9	19%
Hardware sales and commissions	17.4	53%	11.6	48%	11.3	54%
<b>TOTAL</b>	<b>\$32.6</b>	<b>100%</b>	<b>\$23.9</b>	<b>100%</b>	<b>\$20.7</b>	<b>100%</b>

Software and installation revenues increased 24% during fiscal 1993, with significant contribution from both the CIF 20/20 and Silverlake System product lines.

- Sales of the CIF 20/20 product were heightened by introducing a new Release 2.0 native software for the IBM AS/400. Customers of older generation systems (IBM 3X hardware) are migrating to this new system.
- Sales of the Silverlake System showed a larger absolute and percentage increase during fiscal 1993, resulting from a lower beginning base and a much larger average price. The system, which operates on the IBM AS/400, continues to replace in-house mainframe systems and service bureau operations in larger banks.

Maintenance/support services revenue increased 23% during fiscal 1993, reflecting services provided on systems sold to new customers and aided by the continued upgrade of existing customers to the latest

version of CIF 20/20. A small 6% of the increase was attributed to 42 new customers whose maintenance contracts were acquired from Fremont Software in December 1992.

Hardware sales increased 50% during fiscal 1993 due to the number of sales, size and the mix of sales. Also, timing of order entry and delivery positively impacted the increase. Sales of Silverlake Systems experienced the largest growth.

### **Geographic Markets**

More than 95% of JHA's fiscal 1993 revenue was derived from the U.S. and the remainder from international sources.

- JHA has clients in 45 U.S. states.
- The company's international client base was expanded with the acquisition of BankVision Software Ltd. in August 1993.

### **Operations/ Structure**

JHA is headquartered in Monett (MO) and has one subsidiary, Jack Henry International, Ltd., which is responsible for marketing JHA's products outside the U.S.

### **Acquisitions/ Divestitures**

In August 1993, JHA exercised its option to acquire all of the outstanding shares of BankVision Software Ltd. of Durango (CO) for approximately \$2 million in JBA stock plus contingent payments based on future performance. The acquisition was accounted for as a purchase.

- JHA has had a strategic alliance with BankVision since January 1993. Previously, BankVision operated as part of Dallas-based Hogan Systems until May 1990, when its community bank product line was sold to BankVision management.
- BankVision's current primary focus is software and services for the international banking community. Its 44 systems outside the U.S. are installed in banks with assets up to \$85 million.
- Over the past three years, BankVision developed a new international software package partially funded by JHA.
- BankVision had 1992 revenue of about \$1.8 million from turnkey sales and associated services. JHA believes that revenue could exceed \$4 million for fiscal 1994.

- The BankVision acquisition provides JHA with enhanced global relationships and currency-exchange and multilingual capabilities, essential factors for JHA's international expansion. JHA believes that BankVision is a solid foundation for building a worldwide customer base and that the Pacific Rim and Latin America are particularly attractive areas for expansion.

In December 1992, JHA acquired Fremont Software, Inc. (FSI) of Fremont (IN) from First National Bank of Fremont (IN).

- FSI markets software and is an authorized remarketer of IBM computers to smaller and medium-sized banks, with an installed base of approximately 42 systems, primarily in Illinois and Indiana.
- JHA plans to migrate FSI customers to its CIF and Silverlake product lines.

In January 1992, JHA acquired the customer base and related maintenance contracts of Bankers Own Software Systems (BOSS) of Hays (KS). The acquisition added 40 customers to the JHA installed customer base. Customers are located primarily in Kansas, Nebraska and Oklahoma.

During fiscal 1990, JHA disposed of its securities brokerage/financial services and trust businesses conducted by FinServ Capital Corporation and its subsidiaries.

- The FinServ operations generated significant losses in each year following their acquisition by JHA in fiscal 1987, despite actions to reduce the size and cost of operations.
- JHA reported losses, net of tax benefits, for these operations of \$1.5 million in fiscal 1990 and \$1.0 million in fiscal 1989.

## **Key Products and Services**

JHA offers integrated systems for community banks, savings banks and thrifts that are designed to automate all aspects of a bank's operations.

### *Turnkey Systems/Software Products:*

The company's primary systems are CIF 20/20 and the Silverlake System.

- Each system consists of several fully integrated applications software modules for customer information files, account records, deposits, loans, general ledger, IRAs and investment account management.

- The systems make extensive use of parameters established by the customer.
- The systems can be interfaced with various peripheral devices used in bank operations, including ATMs, on-line teller terminals and magnetic character readers.

CIF 20/20 is the latest in a series of systems that evolved from JHA's original banking industry software.

- CIF 20/20 runs on both the IBM AS/400 and the IBM System 36 and is designed primarily for financial institutions with total assets ranging from \$2 million up to \$300 million. Previous software versions were available for IBM System 34 and 32 computers.
- During fiscal 1993, JHA introduced the CIF 20/20 Release 2.0., native software for the IBM AS/400, written in RPG/400 to take advantage of the relational database features and functions of the AS/400.
- It is anticipated that over the next three years, a large percentage of JHA customers with earlier generation CIF 20/20 systems will migrate to the CIF 20/20 Release 2.0 or to the Silverlake System.

The Silverlake System, introduced in 1988, was positioned as a new entrant to the medium-size bank market segment.

- The Silverlake System was developed to operate in a native environment on the AS/400, taking advantage of its relational database characteristics.
- It is designed generally for somewhat larger banks than CIF 20/20 and multibank groups in the asset range of \$100 million to \$3 billion. This has moved JHA into the lower end of the major-bank market, which previously had been served only by mainframe computers.
- There are currently more than 42 of these systems installed.

JHA has recently announced a proprietary software package for ATMs that can stand alone or work as part of an ATM network.

- The product is reportedly a fraction of the cost of competing systems and the only system that can be powered by a PC.
- Sales of this product have been contracted to Commlink, a provider of ATM systems.



As a result the acquisition of BankVision, JHA also offers a software package targeted to international banks. There are currently more than 45 installations.

*Support Services:*

Installation services include data conversion, software installation, interfaces with other systems, software customization and education and training either at JHA's headquarters or at the customer's site.

Software maintenance/support is provided under annual contracts. Services include telephone support, program modifications, and enhancements.

Hardware maintenance is contracted between JHA and the customer. IBM performs the actual hardware maintenance under a contract between IBM and JHA.

Mobile emergency facilities backup services are also available to CIF 20/20 customers.

**Marketing  
and Sales**

JHA markets its Silverlake System and CIF 20/20 products throughout the U.S. using sales representatives employed by and working directly for JHA.

JHA also conducts international sales through its small foreign sales subsidiary, JHI.

JHA's primary market is commercial banks. JHA has not devoted significant marketing and sales efforts to other financial institutions such as savings and loans or credit unions.

- JHA does have several savings and loans and savings bank customers, but most operate more like commercial banks than traditional thrift institutions.
- With its current range of products, JHA systems are appropriate for all but the largest regional money center banks.
- Most of the sales effort and success has been in banks from \$2 million to \$1 billion in total assets.

**Alliances**

JHA is an Industry Remarketer for IBM's AS/400.



Over the years, JHA has taken small equity positions in companies in conjunction with various strategic alliances.

- Prior to its acquisition of BankVision, JHA had an option to acquire an equity position in BankVision in conjunction with a strategic alliance.
- JHA has a similar agreement with Commlink, a Houston-based ATM software company.

During fiscal 1990, JHA's international unit, JHI, was instrumental in the formation of a 25%-owned affiliate, Silverlake System Sdn Bhd (SSSB) based in Kuala Lumpur, Malaysia.

- SSSB is currently working with IBM Malaysia and is modifying the Silverlake System for operation in that country. SSSB is installing the modified Silverlake System, to be known as the Asian Pacific Version of Silverlake System, in a major Malaysian bank.
- SSSB agreed to pay JHI 50% of all software revenues for the right to license the Asian Pacific Version in Malaysia and certain other countries in the Far East.

## Competitors

By targeting commercial banks with assets under \$3 billion, JHA feels it is selling its software to a market segment that is too small to merit the attention of many larger competitors, but too sophisticated to be well served by smaller competitors.



## COMPANY PROFILE

### JAVELIN SOFTWARE CORPORATION

One Kendall Square  
Building 200  
Cambridge, MA 02139  
(617) 494-1400

Robert L. Firmin, Chairman and CEO  
Stanley Kugell, President  
Public Corporation, OTC  
Total Employees: 26 Full-Time (6/87)  
Total Revenue, Fiscal Year End  
12/31/86: \$4,258,035

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### THE COMPANY

- Javelin Software Corporation designs, develops, markets, and supports business and professional application software packages for microcomputers. The company's first product, Javelin®, is a business analysis, planning, and reporting tool. Over 50,000 units of Javelin have been shipped since its introduction in October 1985.
  - The company was founded in January 1983 as Fulcrum Corporation and changed its name to Javelin Software in August 1984.
  - In July 1987 the company issued a preliminary prospectus in anticipation of an initial public offering of 815,000 shares of common stock. Net proceeds will be used to repay bank debt of \$320,000 and for general corporate purposes.
- Javelin Software's 1986 revenue reached \$4.3 million compared to 1985 revenue of \$384,713. Net losses were \$881,238 in 1986 compared to losses of \$2.3 million in 1985. A three-year financial summary follows:

JAVELIN SOFTWARE CORPORATION  
THREE-YEAR FINANCIAL SUMMARY  
(\$ thousands, except per share data)

Item \ Fiscal Year	Fiscal Year		
	1986	1985	1984
Revenue	\$ 4,258	\$ 385	-
Net (loss)	\$ (881)	\$ (2,335)	\$ (379)
(Loss) per share	\$ (0.36)	\$ (1.23)	\$ (0.27)

- 1986 was the first full year of marketing activities for the company since its first product, Javelin, was introduced in October 1985. Javelin I.I., an upgraded version of Javelin, was introduced during 1986.

## JAVELIN SOFTWARE CORPORATION

- In October 1986 Javelin Software reduced the U.S. suggested retail price of Javelin from \$695 to \$99.95 in an attempt to increase the company's installed base of Javelin users.
  - This price reduction resulted in the shipment of approximately 11,000 copies of Javelin during the three months ending March 31, 1987 as compared to approximately 3,000 copies for the three months ending March 31, 1986.
  - Although the price of Javelin was temporarily increased to \$199.95 in January 1987, it has been permanently reduced to \$99.95 in connection with the introduction of Javelin PLUS<sup>T.M.</sup> in June 1987.
- Revenue for the three months ending March 31, 1987 was \$1 million, a 6% increase over \$955,000 for the same period in 1986. Net income was \$1,804 compared to net losses of \$311,688 for the same period a year ago.
- As of June 1, 1987, Javelin Software had 26 full-time and four part-time employees, segmented as follows:

Marketing and sales	9
Customer support and training	6
Product development	7
Production control	2
General and administrative	3
Executive officers	<u>3</u>
	30

- Major competitors include Lotus Development (1-2-3<sup>®</sup>), Execucom Corporation (IFPS<sup>®</sup>), Microsoft (Multiplan<sup>®</sup>), Computer Associates (Supercalc IV<sup>®</sup>), Mosaic Software (Turn<sup>®</sup>), and Paperback Software (VP Planner<sup>®</sup>).

### KEY PRODUCTS AND SERVICES

- One hundred percent of Javelin Software's 1986 revenue was derived from its Javelin business analysis, planning, and reporting software products.
- The company's software products run on IBM and compatible microcomputers under the MS-DOS operating system (versions 2.1 and up). Javelin Software has shipped over 50,000 units of Javelin, of which approximately 35,000 units have been shipped in the U.S. and Canada, and approximately 15,000 units have been shipped internationally.
- Javelin uses a central information base and permits a user to look at the information through one or two windows in 10 different views, including a worksheet format, diagrams, formulas, tables, charts, and graphs.

- The ability to keep track of logic, assumptions, and data in the natural language of the user and to analyze the information through multiple views allows users to create financial planning models that Javelin Software management believes are more useful than those that can be created with conventional spreadsheets.
- Javelin has a suggested retail price of \$99.95.
- In May 1987, the company announced the introduction of Javelin PLUS, which it began shipping in upgrade form to existing users of Javelin in June 1987. Javelin Plus will be shipped as a separate product beginning in the third quarter of 1987 at a U.S. suggested retail price of \$249.
  - Javelin PLUS incorporates all of the features of Javelin, and adds a data base capability, the ability to manipulate text and date variables as well as numbers, expanded graphic capabilities, 43 new functions, and a number of other features. The data base capability permits users to store non-numeric data, such as lists of staff members or customers, invoices, products, or similar items; to select and sort records on a list; and to look up values from one list in another list.
  - In addition, Javelin PLUS has been designed with an open architecture to permit Javelin Software, third-party vendors, and corporate MIS departments to add Snap-In Building Blocks for application-specific additions to Javelin PLUS.
    - Javelin PLUS comes with four Snap-In Building Blocks: What If?, for scenario sensitivity analysis; Forms Input, for designing and implementing data entry forms; and Multiple Regression and Histogram for additional statistical analysis.
    - The company expects to begin shipping these Snap-In Building Blocks in the third quarter of 1987.
- Javelin Software markets Javelin in cooperation with value-added resellers (VARs), who create specific models (templates) with Javelin for particular industries. The company performs its own quality assurance procedures, adds documentation to these products, and sells them through mail order. The company began shipping the following templates in June 1987:
  - Bottomline V is a financial planning, analysis, modeling, and forecasting system that produces the basic financial reports necessary for managing a business.
  - The Financial Series includes forecasting via regression; inventory management; cash budgeting; cash management; deferred compensation; cash flow breakeven; debt versus equity financing; lease versus purchase; pension fund management; and borrowing costs.

- Final Analysis is used by financial analysts to examine a company's financial composition and stability using established techniques of ratio analysis and reporting.
- Mailing List (for Javelin PLUS) maintains a data base of names and addresses, prints mailing labels in three formats, sorts by Zip Code or name, and calculates a regional analysis of the user's mailing list.
- Personal Series (for Javelin PLUS) includes a mortgage loan analyzer, checkbook balancing, and personal budgeting.
- In April 1986, Javelin Software introduced its Javelin Trial Pack, a version of Javelin that performs all of its functions but which is limited in the size of analysis than can be performed. The purpose of the Trial Pack is to acquaint prospective end users with Javelin's design at a minimal expense. The Trial Pack is sold over the telephone for \$19.95. The company has run a number of advertisements and sent direct mail pieces to prospective end users promoting the Trial Pack.
- Customer support and training services offered by Javelin Software include the following:
  - Javelin Software maintains a paid customer services hot line to handle problems and adjustments. This service is offered free for 30 days after the customer's first support phone call and then on a subscription basis.
  - The company regularly publishes newsletters highlighting product features and support and also offers training seminars where various uses of the products are explained.
  - The company also sponsors a Users' Forum on the CompuServe network that offers technical support, training, and on-line help to subscribers.
  - In March 1987, Javelin Software entered into an agreement with Mentor Technologies, Inc., a computer training company, to present a multi-city series of over 130 training seminars throughout 1987. The seminars run one day, and include an introduction to modeling concepts, training on various Javelin features, and instruction on how to coordinate the use of Javelin with other spreadsheets.

## INDUSTRY MARKETS

- Javelin Software derives its revenue from sales through the following distribution channels:

# JAVELIN SOFTWARE CORPORATION

	<u>1986</u>	<u>1985</u>
Domestic distributors	19%	-
International distributors	24	9%
Dealers	31	91
Mail order	<u>26</u>	<u>-</u>
	100%	100%

- Javelin Software domestic distributors include Softsel Computer Products, MICRO D, and Ingram Software.
- Javelin Software has a number of dealers throughout the U.S. and Canada that carry the company's products.
- Javelin Software initiated mail order sales in October 1986.
- In March 1987, the company introduced its VAR program for marketing Javelin and Javelin PLUS to specific industries. The VAR program promotes the sale of the company's templates and customized models as well as sales of new Snap-In Building Blocks.
- The company offers a modified version of Javelin to universities at nominal cost in an effort to make the Javelin line of products the preferred choice of students prior to their becoming business users.
- Javelin Software offers a site license program designed to package volume purchases of product and support services for corporate customers. The site license is designed to give large corporate users the control over internal microcomputer software use that is customary with mainframe and minicomputer software. This program is in its experimental stages and has experienced limited acceptance to date.
- Javelin was introduced simultaneously in Europe and the U.S. when first released in October 1985. In April 1986, Javelin Software entered into a distribution agreement with Ashton-Tate granting Ashton-Tate exclusive distribution rights to Javelin and its direct successor products (including Javelin PLUS) for sales outside the U.S. and Canada.
- Under this agreement, Ashton-Tate has developed and promotes translations of Javelin in French and German in addition to selling the original English language version. Ashton-Tate distributes the company's products through Ashton-Tate's subsidiaries in the U.K., West Germany, the Netherlands, Spain, Italy, and Australia, as well as through its distributors in other countries, including France, Scandinavia, Switzerland, New Zealand, Venezuela, Mexico, and Portugal.

- Foreign-based users and multinational corporations have access to software support services in their native language offered by Ashton-Tate or its distributors in each country.
- During 1986 Ashton-Tate and Softsel Computer Products accounted for approximately 25% and 19%, respectively, of Javelin Software's total revenue.
- Javelin Software's products are used in organizations that range in size from small proprietorships to the largest corporations.
  - Javelin Software management believes that the company's products are being used in all of the approximately 100 major industries.
  - Javelin users include Borg-Warner, Chevron Corporation, Hughes Aircraft, MCI Communications, Price Waterhouse, Raychem Corporation, and United Airlines.

#### GEOGRAPHIC MARKETS

- Approximately 75% of Javelin Software's 1986 revenue was derived from the U.S. and Canada and 25% from other international sources.
- As previously described, Javelin Software products are distributed outside the U.S. and Canada by Ashton-Tate.



## COMPANY PROFILE

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### JEFFERSON-PILOT DATA SERVICES, INC.

301 South McDowell St.  
Charlotte, NC 28204  
(704) 347-8000

Mike Jones, President  
Division of Jefferson-Pilot  
Corporation  
Total Employees: 300  
Total Revenue, Fiscal Year End  
12/31/88: \$35,000,000\*

\* INPUT estimate

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### The Company

Jefferson-Pilot Data Services, Inc. (JDS) provides processing, software, and turnkey systems for the broadcasting, cable, and advertising industries.

JDS was formed as a result of the merger of three companies in broadcasting automation--Jefferson-Pilot Data Systems, the Broadcast Division of Data Communications Corporation (DCC), and Mini-Pak, Inc. (MPI). The merger was completed on December 31, 1986.

- Jefferson-Pilot Data Systems formerly operated as a division of Jefferson-Pilot Communications Company and provided turnkey systems for the broadcasting industry.
- The Broadcast Division of DCC was acquired by Jefferson-Pilot Communications Company in December 1986 for an undisclosed sum. This unit provided mainframe-based processing systems to the broadcasting industry.
- Mini-Pak, Inc. of New York (NY) formerly operated as a subsidiary of Data Communications Corporation and provided software for national sales representatives of the broadcast and advertising industries. It was acquired by Jefferson-Pilot Communications Company in 1986 for an undisclosed sum.

In July of 1988, JDS acquired SunSpot, Inc. of Albuquerque (NM) for an undisclosed sum. SunSpot, Inc. provided microcomputer-based sales/traffic and accounting systems to radio stations. An updated version of its IBM PC-based product is marketed by JDS as JDS 850.

JDS currently provides processing, software, and turnkey systems for the majority of the nation's total TV spot advertising using the JDS and BIAS sales/traffic systems.

Major competitors for JDS's broadcasting automation and processing services are Columbine Systems Inc. of Golden (CO), and Enterprise Computer Systems of Colorado Springs (CO).

**Key Products and Services**

JDS's revenue is derived from processing services, application software products, and turnkey systems provided to the broadcast and advertising industries. A summary of the company's current offerings are shown in the exhibit.

JDS currently has over 1,000 clients.

**Industry Markets**

One hundred percent of JDS's 1988 revenue was derived from the broadcasting and advertising industries.

**Geographic Markets**

One hundred percent of JDS's 1988 revenue was derived from the U.S. and Canada.

JDS has sales offices in Memphis, New York City, and Los Angeles.

**Computer Hardware**

JDS maintains three data center locations as follows:

Charlotte (NC).

- IBM AS/400 minicomputer.
- IBM S/36 5360 minicomputer.
- IBM S/36 5364 PC's.
- IBM S/36 5363 minicomputer.

Memphis (TN).

- Unisys (Burroughs 7900) Mainframes.
- IBM AS/400 minicomputer

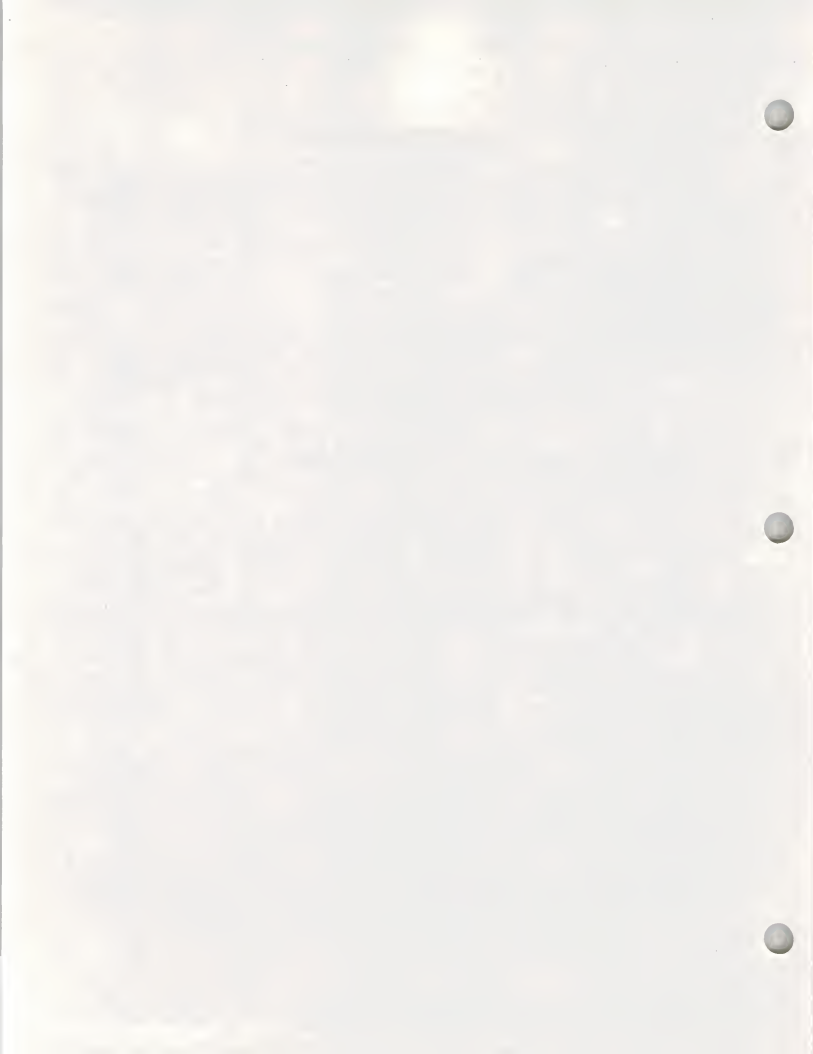
New York (NY).

- IBM Series 1 minicomputers

Clients access JDS's on-line private network via dedicated lines.

**EXHIBIT**  
**JDS PRODUCTS AND SERVICES**

PRODUCTS/SERVICES	Software	On-line Processing	Turnkey	Operating Environment
JDS 1000 - Sales/traffic/billing system	XXX		XXX	IBM/36
JDS 2000 - Sales/traffic/billing system	XXX		XXX	IBM/36
JDS \$ALLY - Sales research system	XXX		XXX	IBM PC-AT
JDS FMS - Financial management system			XXX	IBM PC-AT
JDS ENP - Electronic news processing system	XXX		XXX	IBM PS/2, AT
JDS 850 - sales/traffic/billing system	XXX			IBM PS/2, AT
BIAS - On-line sales/traffic/billing system		XXX		Burroughs MCP
BIAS Financials - Accounting systems (AP, GL, AR)	XXX		XXX	DG AOS
BIAS Film Management - Film management/amortization system	XXX		XXX	DG AOS
REPLINE - Representative sales/research system	XXX	XXX	XXX	IBM Series 1
SESAMI - Station availabilities and sales research system	XXX	XXX	XXX	IBM Series 1
SPOTLINE - Advertising agency spot keeping system	XXX	XXX	XXX	IBM Series 1
COMMLINE - Agency traffic system	XXX	XXX	XXX	IBM Series 1
PRINTLINE - Print insertion system	XXX	XXX	XXX	IBM Series 1
ACCLINE - Accounting system	XXX	XXX	XXX	IBM Series 1
NETLINE - Network advertising campaign system	XXX	XXX	XXX	IBM Series 1
Electronic Contract - Representative-to-station electronic orders system		XXX		JDS Private Network
Electronic invoice Station-to-agency electronic affidavits system		XXX		JDS Private Network



## COMPANY PROFILE

### JEFFERSON-PILOT DATA SERVICES, INC.

One Julian Place  
Charlotte, NC 28208  
(704) 529-3901

Mike Jones, President  
Division of Jefferson-Pilot  
Communications Company  
Total Employees: 300  
Total Revenue, Fiscal Year End  
12/31/86: \$30 Million\*

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### THE COMPANY

- Jefferson-Pilot Data Services, Inc. (JDS) provides processing, software, and turnkey systems for the broadcasting and advertising industries.
- JDS was formed as a result of the merger of three companies in broadcasting automation—Jefferson-Pilot Data Systems, the Broadcast Division of Data Communications Corporation (DCC), and Mini-Pak, Inc. (MPI). The merger was completed on December 31, 1986.
  - Jefferson-Pilot Data Systems formerly operated as a division of Jefferson-Pilot Communications Company and provided turnkey systems for the broadcasting industry.
  - The Broadcast Division of DCC was acquired by Jefferson-Pilot Communications Company in December 1986 for an undisclosed sum. This unit provided minicomputer-based turnkey systems to the broadcasting industry.
  - Mini-Pak, Inc. of New York (NY) formerly operated as a subsidiary of Data Communications Corporation and provided software for national sales representatives of the broadcast and advertising industries. It was acquired by Jefferson-Pilot Communications Company in 1986 for an undisclosed sum.
- JDS currently provides processing, software, and turnkey systems for the majority of the nation's total TV spot advertising using the JDS and BIAS sales/traffic systems.
- The combined revenues of the three merged businesses that currently make up JDS is estimated at \$30 million for 1986. INPUT estimates over 98% of JDS's 1986 revenue was noncaptive. JDS management estimates 1987 revenue will be \$35 million.
- Major competitors for JDS's broadcasting automation and processing services are Columbine Systems Inc. of Golden (CO), Enterprise Computer Systems of Greenville (SC), and Kaman Sciences Corporation of Colorado Springs (CO).

\*Includes captive revenue

## KEY PRODUCTS AND SERVICES

- JDS's revenue is derived from processing services, application software products, and turnkey systems provided to the broadcast and advertising industries. A summary of the company's current offerings are shown in the exhibit.
- Prices for JDS's products and services are available from JDS upon request.
- JDS has an installed customer base of over 500 clients.

## INDUSTRY MARKETS

- One hundred percent of JDS's 1986 revenue was derived from the broadcasting and advertising industries.

## GEOGRAPHIC MARKETS

- One hundred percent of JDS's 1986 revenue (restated) was derived from the U.S.
- JDS has sales offices in Memphis, New York City, and Los Angeles.

## COMPUTER HARDWARE AND SOFTWARE

- JDS maintains three data center locations as follows:
  - Charlotte (NC).
    - IBM S/36 5360 minicomputer.
    - IBM S/36 5364 PCs.
  - Memphis (TN).
    - Unisys (Burroughs 7900) mainframes.
  - New York (NY).
    - IBM Series 1s.
- Clients access JDS's on-line private network via dedicated lines.

## EXHIBIT

## JDS PRODUCTS AND SERVICES

PRODUCTS/SERVICES	AVAILABILITY			
	Software	Online Processing	Turnkey	Operating Environment
JDS 2000 - Sales/traffic/billing system	X		X	IBM/36
JDS \$ALLY - Sales research system	X		X	IBM PC-AT
JDS FMS - Financial management system			X	IBM PC-AT
JDS AutoSelect III - Radio music rotation	X		X	IBM PC-AT
JDS CORE - Call-out research system	X		X	IBM PC-AT
JDS ENP - Electronic processing system	X		X	IBM PC-AT
JDS 500 - PC-based sales/traffic/billing system	X			IBM PC-AT
BIAS - On-line sales/traffic/billing system		X		Burroughs MCP
BIAS Financials - Accounting systems, (A/P, G/L, A/R)	X		X	DG AOS
BIAS Film Management - Film management/amortization system	X		X	DG AOS
REPLINE - Representative sales/research system	X	X	X	IBM Series 1
SESAMI - Station availabilities and sales research system	X	X	X	IBM Series 1
SPOTLINE - Advertising agency spot keeping system	X	X	X	IBM Series 1
COMMLINE - Agency traffic system	X	X	X	IBM Series 1
PRINTLINE - Print insertion system	X	X	X	IBM Series 1
ACCLINE - Accounting system	X	X	X	IBM Series 1
NETLINE - Network advertising campaign system	X	X	X	IBM Series 1
Electronic Contract - Representative-to-station electronic orders system		X		JDS Private Network
Electronic Invoice - Station-to-agency electronic affidavits system		X		JDS Private Network





## COMPANY HIGHLIGHT

**JOHNSON SYSTEMS, INC.**  
8300 Greensboro Drive  
McLean, VA 22102  
(703) 821-1700

Steven Johnson, President  
Private Corporation  
Total Employees: 110  
Total Revenue, Fiscal Year End  
12/31/82: \$7,500,000\*

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### THE COMPANY

- Johnson Systems, Inc., incorporated in 1971, markets job accounting, production control, and performance monitoring software for IBM and plug compatible mainframes.
- Johnson Systems has been profitable since its formation. A 30% increase in revenue is projected for 1983.
- The 110 Johnson employees are segmented as follows:

Marketing/sales	40
Product development	32
Product support and education	26
General and administrative	<u>12</u>
	110

- Major competition for Johnson's Job Accounting Report System (JARS) comes from Computer Associates International (JASPER), Pace Applied Technology (KOMAND), and Value Computing (Comput-A-Charge). Johnson's Automated Planning and Execution Control System (APEX) competes with UCC SEVEN from University Computing.

### KEY PRODUCTS AND SERVICES

- One hundred percent of Johnson Systems' 1982 revenue was derived from utility systems software for IBM and compatible mainframes. The products provide production control management, computer capacity planning and chargeback, CICS/VS performance measurement, and data center management reporting. Johnson software packages are outlined in the exhibit and include the following:
  - Job Accounting Report System (DOS JARS), Johnson's initial product introduced in 1972, is a computer resource utilization reporting and job cost accounting package that provides performance measurement and cost distribution for DOS, DOS/VS, and DOS/VSE users. DOS JARS generated 29% of 1982 revenue.

\*INPUT estimate

## EXHIBIT

## JOHNSON SYSTEMS SOFTWARE PRODUCTS

PRODUCT	DESCRIPTION	PRICE	NUMBER INSTALLED	CPU REQUIREMENTS (Operating System)
DOS JARS (Job Accounting Report System)	Computer utilization and job accounting for DOS, DOS/VS, and DOS/VSE users.	\$ 4,000	1,400	IBM 370, 30XX, 43XX, and compatible. DOS, DOS/VS, DOS/VSE, GRASP, GRASP/VS, EDOS.
OS JARS (Job Accounting Report System)	Computer utilization and job accounting for OS and OS/VS users.	\$12,500	1,600	IBM 370, 30XX, 43XX, and compatible. MVS, SVS, VS1, MVT, MFT, OS, OS/VS.
UMAX (CICS/VS Utilization Monitor and Chargeback System)	CICS/VS utilization and billing system.	\$ 4,000 (DOS) \$ 6,000 (OS)	1,800	IBM 370, 30XX, 43XX, and compatible. DOS/VS, DOS/VSE, MVS, VS1, SVS, CICS/VS, OS.
GOLD (CICS/VS Graphic On-line Display System)	On-line graphics option to UMAX.	\$ 2,000 (DOS) \$ 4,000 (OS)	500	
APEX (Automated Planning and Execution Control System)	OS production control and workload management.	\$34,000	100	IBM 370, 30XX, 43XX, and compatible. MVS, VS1, OS.
JARS/Workload Management System	APEX option used in conjunction with OS JARS for workload forecasting, planning, and scheduling.	\$12,500	30	IBM 370, 30XX, 43XX, and compatible. MVS, SVS, VS1, MVT, MFT, OS, OS/VS.

JOHNSON SYSTEMS, INC.

- OS JARS provides equivalent information for systems operating under OS and OS/VS. Thirty-seven percent of 1982 revenue was derived from OS JARS.
- CICS/VS Utilization Monitor and Chargeback System (UMAX) is a data collection system providing complete accounting, billing, cost distribution, and performance measurement for all resources used by each CICS/VS application and user. Twenty-eight percent of 1982 revenue was derived from UMAX.
  - CICS/VS Graphic Online Display System (GOLD) was introduced in 1980 as an option to UMAX. GOLD displays CICS/VS utilization data on-line in a series of preformatted graphs, charts, and alphanumeric arrays.
- Automated Planning and Execution Control System (APEX) automates production control of OS and OS/VS data centers, including JCL handling, communications, processing, education, and job recovery. APEX contributed 6% of 1982 revenue.
  - The JARS/Workload Management System was introduced in April 1982 as an option to APEX. The product provides a data base of data center management information for workload forecasting, planning, and scheduling by combining APEX production control information with OS JARS resource management facilities.
- In 1980 Johnson acquired the ALARM system from Tagg Associates of Arlington (VA). ALARM measures computer equipment reliability and evaluates the effectiveness of vendor maintenance. Johnson Systems relinquished its ALARM marketing rights to TAGG Associates in December 1981, as the product was no longer considered compatible with Johnson's future product marketing plans.
- A new line of software being developed is operating system independent and easier to support and enhance. The first product introduction is scheduled for September 1983.
- Software products are available on a license, monthly lease, or monthly rental basis. Discounts of 15% are offered for each additional installation.
  - An annual maintenance fee, based on 15% of the product purchase price, is charged after the first full year of operation.
  - Johnson offers free Production Control and Job Accounting seminars to prospective customers, product workshops and consulting to clients, and a data center cost distribution workshop to interested data processing professionals.

## INDUSTRY MARKETS

- Johnson's 1982 revenue was derived from clients in federal government, state and local government, banking, manufacturing, education, business services (service bureaus), transportation, and medical industry sectors.
- Johnson software products are installed in over 150 federal government sites worldwide for use by agencies including the Departments of Defense, Justice, Commerce, and the Library of Congress.

## GEOGRAPHIC MARKETS

- Approximately 65% of Johnson Systems' 1982 revenue was derived from the U.S. and 35% from international clients.
  - U.S. branch offices are located in Chicago, Dallas, and San Francisco.
  - Johnson has wholly owned subsidiaries in London, Dusseldorf, and Sydney.
  - International representatives are in France, Sweden, Finland, Italy, South Africa, Argentina, Brazil, Japan, Venezuela, Indonesia, Hong Kong, Denmark, and Mexico.

## COMPUTER HARDWARE AND SOFTWARE

- One IBM 3031 running under OS/VSI, OS/MVS, and DOS/VM is installed at Johnson's data center in McLean.

## COMPANY HIGHLIGHT

**JOHNSON SYSTEMS, INC.**  
7923 Jones Branch Drive  
McLean, Virginia 22102  
(703) 821-1700

Steven Johnson, President  
Private Corporation  
Total Employees: 100  
Total Revenue, Fiscal Year End  
12/31/80: \$6,500,000\*

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**PRINCIPAL BUSINESS** Since its incorporation in 1971, Johnson Systems, Inc. (JSI) has marketed job accounting and performance monitoring software for IBM and plug compatible hardware.

### SOURCE OF REVENUE

- 100% Software products.
  - JSI acquired the ALARM system in 1980 from Tagg Associates of Arlington, VA.
  - Johnson is currently developing a DOS version of its data center production control software (APEX).
  - JSI intends to expand both by acquisition and internal development of additional systems software products.

### PRODUCTS AND SERVICES

- Johnson Systems, Inc. specializes in utility software for large IBM mainframes. Its first system, DOS JARS, was introduced in 1972 and its most recent product, ALARM, came out in 1980. JSI software packages, in order of revenue generation, include the following:
  - Job Accounting Report System (DOS JARS) operates on IBM 360/370, 303X, and compatible hardware running under DOS. It reports on job cost, throughput budgeting, resource utilization, and software performance. Costing \$4,000, there are 1,300 installations.
  - OS JARS provides equivalent reports for systems operating under OS. OS JARS software costs \$10,000. There are 1,200 systems installed to date.
  - CICS/VS Utilization Monitor And Chargeback System (UMAX) is a data collection system that enables accurate accounting and billing for resources used by each CICS/VS application and user. There are 900 installations of this package which runs on IBM/370 and larger or compatible equipment. The OS version sells for \$6,000 and the DOS version for \$4,000.

\*INPUT estimate

- Automated Planning And Execution Control System (APEX) automates production control of OS and OS/VS data centers. It costs \$32,000 and runs on IBM/370 and larger or compatible machines operating under OS. There are currently 100 installations.
- Hardware Reliability Measurement System (ALARM) measures computer equipment reliability and evaluates effectiveness of vendor maintenance service. The OS version ranges in price from \$5,000 to \$14,000 and the DOS version from \$3,000 to \$8,000. The 75 installations run on IBM 360 and larger or compatible hardware.

**INDUSTRY MARKETS** Johnson's software is machine, not industry, dependent. No industry target or specialization exists.

**GEOGRAPHIC MARKETS** Approximately two-thirds of Johnson's revenue is derived from domestic clients. The remaining one-third comes from international customers.

- JSI has wholly owned subsidiaries in England and Germany. It also has international representatives in France, Sweden, Finland, Italy, South Africa, Argentina, Brazil, Japan, Australia, and the Philippines.

**COMPUTER HARDWARE AND SOFTWARE** Johnson presently has one IBM 4331 Model 2 installed. The company plans to upgrade to an IBM 4341.

## COMPANY HIGHLIGHT

*Robert F. Makintosh*  
*UP-marketing*

JOHNSON SYSTEMS, INC.  
8400 Westpark Drive  
McLean, VA 22101  
(703) 893-8700

Steven Johnson, President  
Private corporation  
Total employees: 28  
Total revenues, fiscal year end  
12/31/77: \$2,000,000

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### THE COMPANY

- Johnson Systems, Inc. (JSI) was founded in 1971 in Virginia by Steven Johnson and Paul Sterbutzol. It offers a systems software package to a variety of industries.
- Revenues increased 33% from \$1.5 million in fiscal 1976 to \$2.0 million in fiscal 1977. Management expects fiscal 1978 revenues to reach \$2.8M, an increase of 40% over 1977 revenues.
  - Net profit in fiscal 1976 was \$500,000 (33% of revenues).
  - Effective January 1, 1977, the company made a sub-chapter "S" election. Profits subsequent to this date are not available.

### KEY PRODUCTS AND SERVICES

- JSI's principal software product is its Job Accounting Report System (JARS) which was introduced in 1972 and currently has 1000 installations.
- JARS is a computer utilization reporting and job accounting system. It provides the following applications:
  - Job accounting
  - Cost distribution
  - Budget control
  - Programmer monitor
  - Software performance measurement
  - Resource utilization analysis
  - Thruput analysis
  - Job scheduling
- There are two available versions of the system: DOS and OS. The DOS JARS runs on IBM 360/370 mainframes operating under DOS/VS and DOS.
  - The basic components of both versions of the software are an interface routine, a dump utility, a data management utility, and a report program.

February 1978

## COMPANY HIGHLIGHT/JOHNSON SYSTEMS, INC.

- Both versions have a CICS/VS option. TSO support and Summarization (Historical Data Base) options are also available for the OS version.
- The DOS version also includes a data set spool utility program.
- The permanent license fee schedules are as follows:

<u>JARS VERSION &amp; OPTIONS</u>	<u>FIRST LOCATION</u>	<u>ADDITIONAL LOCATIONS</u>
DOS JARS	\$4,000	\$3,000
Power/VS Interface	1,500	1,125
OS JARS	6,000	4,500
TSO Support	1,500	1,125
Summarization	1,000	750
DOS at OS Site	\$1,500	\$1,125

**INDUSTRY MARKETS** JSI software is not industry dependent. It is a cross industry package installed wherever large IBM 360/370 systems are in use.

**GEOGRAPHIC MARKETS** The JSI software locations correspond to the computer concentrations across the U.S. and overseas. Approximately 25% of the installations are outside the U.S., primarily in Western Europe.

**COMPUTER HARDWARE AND SOFTWARE** The company has an in-house IBM 370 computer which is used exclusively for new product development.



## COMPANY PROFILE

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### JONAS & ERICKSON

111 Gordon Baker Road

Suite 900

North York, Ontario M2H 3R1

(416) 491-6620

Robert A. Garbutt, President and CEO

Private Company

Total Employees: 400

Total Revenue, Fiscal Year End

12/31/89: \$48,000,000

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### The Company

Jonas & Erickson (J&E), founded in 1977, provides turnkey systems and associated support services for the construction, property management, hospitality, retail, apparel manufacturing/distribution, and wholesale distribution industries. The company is a value-added reseller for IBM, Hewlett-Packard, Prime, and Unisys systems.

J&E is a privately held company divided between U.S. and Canadian interests, including funding by New York venture capital firm Weiss, Peck & Greer.

J&E's 1989 revenue reached \$48 million, a 20% increase over 1988 revenue of \$40 million. A five-year revenue summary follows:

#### JONAS & ERICKSON FIVE-YEAR REVENUE SUMMARY (\$ millions)

ITEM	FISCAL YEAR				
	1989	1988	1987	1986	1985
Revenue	\$48.0	\$40.0	\$30.0	\$25.0	\$9.6
• Percent increase from previous year	20%	33%	20%	160%	109%

J&E management attributes the company's growth to its strong product line and a commitment to customer service and support. It is estimated that 1990 revenue will reach \$55 million. The company has operated profitably since 1977.

Of J&E's 400 employees, approximately 200 are located in the U.S. and 200 in Canada.

**Key Products and Services**

One hundred percent of J&E's revenue is derived from turnkey systems (80%) and associated support services (20%).

J&E offers a number of turnkey systems for management and accounting applications targeted to specific industries, as follows:

- Construction
- Commercial, Residential, and Retail Property Management
- Wholesale Distribution
- Hospitality, Hotels, and Clubs
- Apparel Manufacturing/Distribution
- Ready-Mixed, Aggregates and Mining

J&E's software operates on a common system platform, which includes UNIX. Turnkey systems are available for IBM PC/XT, RT, and PS/2 systems; HP 9000s and Vectra systems; Prime EXL series systems; and Unisys 6000 Series and PW2 computers.

J&E currently has nearly 2,200 turnkey systems installed in over 2,000 businesses across North America.

**Industry Markets**

J&E's 1989 revenue was derived approximately as follows:

Construction	40%
Property Management	30%
Wholesale Distribution	15%
Hospitality	10%
Other	5%
	100%

J&E clients range in size from small firms with annual sales of \$1 million, to Fortune 100 companies. Large clients include Bell Atlantic and General Electric.

In December 1989, J&E introduced *Partners in Profits*, a VAR recruitment program directed at the VAR software market to represent the J&E Construction System. J&E has installed more than 1,200 Construction Systems across North America.

**Geographic Markets**

Approximately 60% of J&E's 1989 revenue was derived from the U.S. and 40% from Canada.

Headquartered in Dallas and North York (Toronto), J&E has a network of 19 branch offices across North America.

- U.S. offices are located in Boston, Chicago, Dallas, Dayton, Denver, Ft. Lauderdale, Los Angeles, Orlando, San Francisco, Secaucus (NJ), and Washington, D.C.
- In Canada, the company has offices in Calgary, Edmonton, London, Montreal, Ottawa, Toronto, Vancouver, and Winnipeg.

